Grizzly Industrial, Inc.®

# 37" DRUM SANDER

## MODEL G0449/G0450

# INSTRUCTION MANUAL

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# WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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# INTRODUCTION

## Foreword

We are proud to offer the Model G0449/G0450 37" Drum Sander. This machine is part of a growing Grizzly family of fine woodworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G0449/G0450. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0449/G0450 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

## Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
C/O Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: http://www.grizzly.com

# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

## MODEL G0449
## 37" DRUM SANDER

Design Type ..... Floor Model

**Overall Dimensions:**

Width With Handle ..... 68"
Height ..... 49"
Depth ..... 50½"
Table Height ..... 29"-33"
Weight (Shipping) ..... 1190 lbs.
Weight (In Place) ..... 1058 lbs.
Crate Size ..... 62" L x 57" W x 45" H
Footprint ..... 45⅛" x 28½"

**Capacities:**

Maximum Board Width ..... 36½"
Maximum Board Thickness ..... 4"
Minimum Board Length ..... 9"
Minimum Board Thickness ..... 1/16"
Surface Speed of Drums ..... 2800 FPM
Conveyor Speed ..... Variable, 6-18 FPM

**Sanding Drum Motor:**

Type ..... TEFC Capacitor Start Induction
Horsepower ..... 10 HP
Voltage ..... 220V ONLY
Amps ..... 44
RPM ..... 1725 RPM
Phase / Cycle ..... Single-Phase / 60 HZ
Power Transfer to Drums ..... Dual Belt Drive
Dust Ports (4) ..... 4"

**Conveyor Feed Motor:**

Type ..... TEFC Induction
Horsepower ..... ⅓ HP
Voltage ..... 220V
Amps ..... 2½
Pole ..... 6
RPM ..... 1175
Phase ..... Single-Phase / 60 Hz
Power Transfer ..... Chain Drive and Belt

**General Construction:**

Frame ..... Steel
Sanding Drums (2) ..... 6" Diameter Steel/Rubber
Pressure Rollers (5) ..... 1 17/32" Diameter Rubber
Conveyor Belt ..... 36½" x 90½" Continuous Belt
..... Easy Access Control Panel w/Load Meter
..... Requires Sanding Rolls 6" Wide
..... Variable Speed Conveyor
..... Advanced Dust Collection

# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

## MODEL G0450
## 37" DRUM SANDER

Design Type ..... Floor Model

**Overall Dimensions:**

Width With Handle ..... 68"
Height ..... 49"
Depth ..... 50½"
Table Height ..... 29"-33"
Weight (Shipping) ..... 1275 lbs.
Weight (In Place) ..... 1143 lbs.
Crate Size ..... 62" L x 57" W x 45" H
Footprint ..... 45⅛" x 28½"

**Capacities:**

Maximum Board Width ..... 36½"
Maximum Board Thickness ..... 4"
Minimum Board Length ..... 9"
Minimum Board Thickness ..... 1/16"
Surface Speed of Drums ..... 2800 FPM
Conveyor Speed ..... Variable, 6-18 FPM

**Sanding Drum Motor:**

Type ..... TEFC Induction
Horsepower ..... 15 HP
Voltage ..... 220V/440V
Amps ..... 40/20
RPM ..... 1725 RPM
Phase / Cycle ..... Three-Phase / 60 HZ
Power Transfer to Drums ..... Dual Belt Drive
Dust Ports (4) ..... 4"

**Conveyor Feed Motor:**

Type ..... TEFC Induction
Horsepower ..... ⅓ HP
Voltage ..... 220V/440V
Amps ..... 1.3/0.65
Pole ..... 6
RPM ..... 1175
Phase ..... Three-Phase / 60 Hz
Power Transfer ..... Chain Drive and Belt

**General Construction:**

Frame ..... Steel
Sanding Drums (2) ..... 6" Diameter Steel/Rubber
Pressure Rollers (5) ..... 1 17/32" Diameter Rubber
Conveyor Belt ..... 36½" x 90½" Continuous Belt
..... Easy Access Control Panel w/Load Meter
..... Requires Sanding Rolls 6" Wide
..... Variable Speed Conveyor
..... Advanced Dust Collection

# Identification

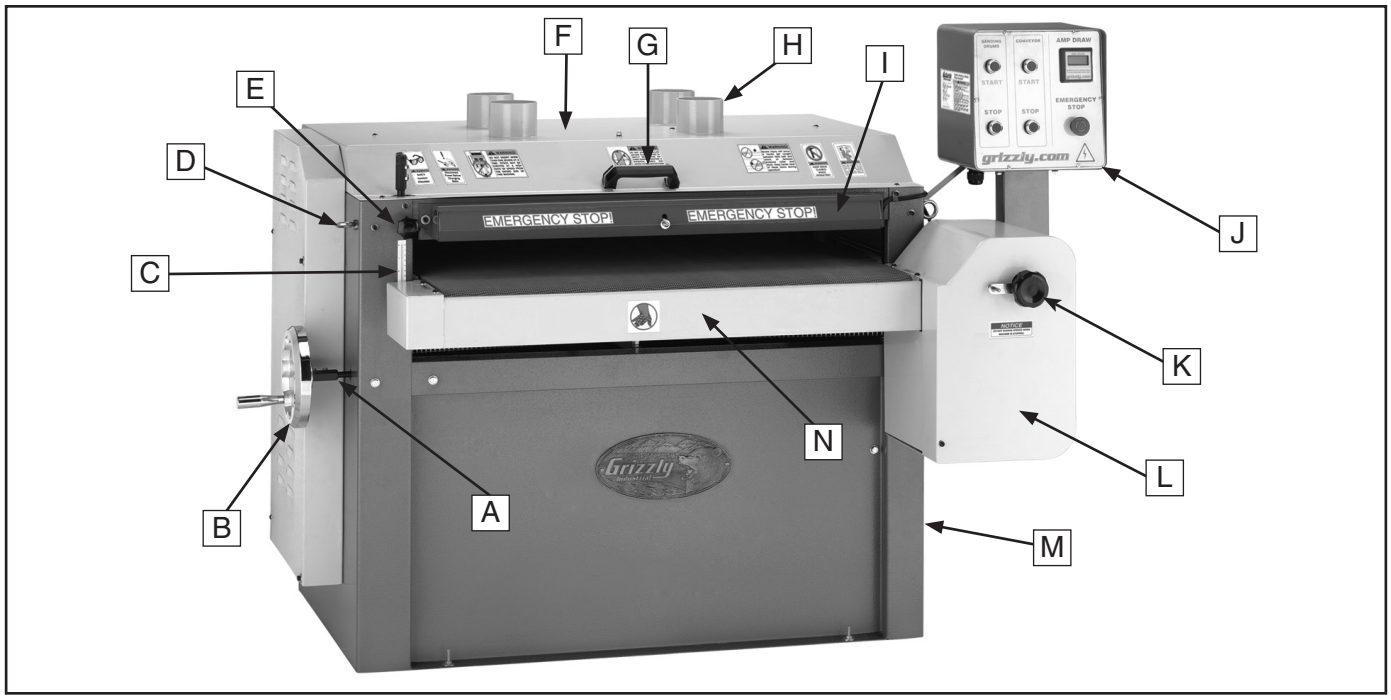



**Figure 1. Front view, Model G0449.**

**A.** Table Height Shaft
**B.** Table Height Handwheel
**C.** Depth Scale
**D.** Lifting Hook
**E.** Table Height Lock Knob
**F.** Top Cover
**G.** Top Cover Handle
**H.** Dust Port
**I.** Emergency Stop Bar
**J.** Control Panel
**K.** Variable Speed Control
**L.** Pulley Motor Housing
**M.** Drum Sander Frame
**N.** Infeed Guard

# Control Panel

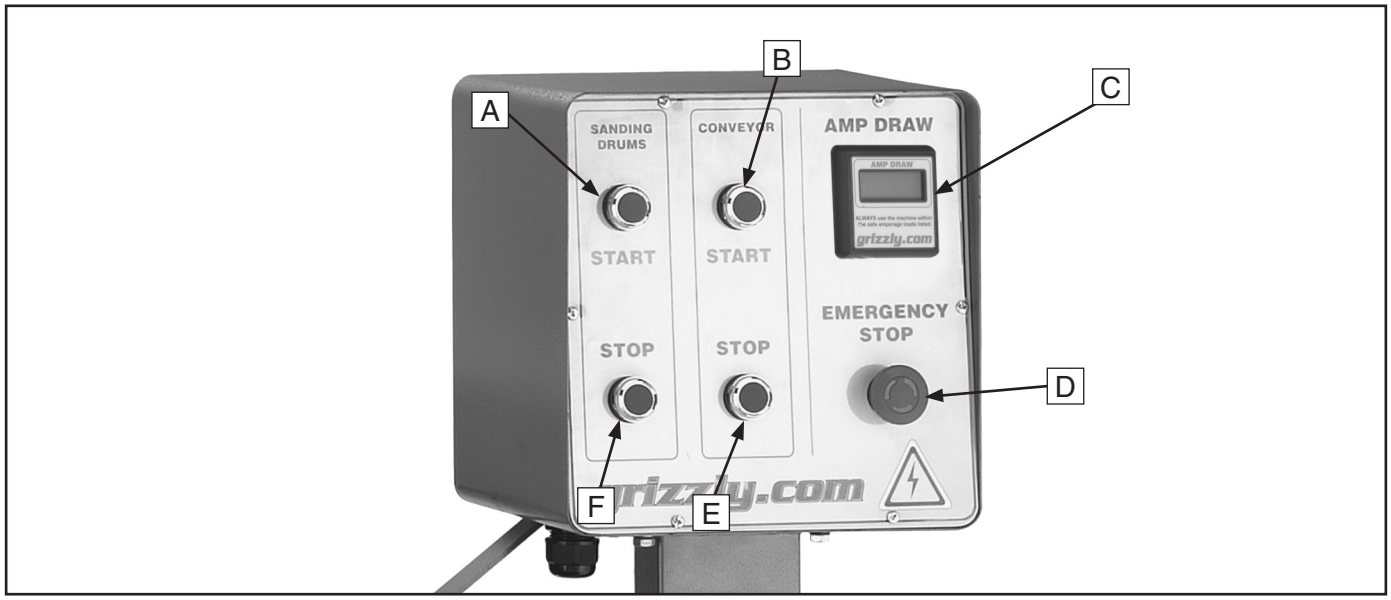



**Figure 2.** Control panel close-up.

**A. SANDING DRUMS START Button**—Starts the sanding drums.

**B. CONVEYOR START Button**—Starts the conveyor belt.

**C. AMP DRAW Meter**—Displays the combined amperage draw of both motors.

**D. EMERGENCY STOP Button**—Stops all machine functions.

**E. CONVEYOR STOP Button**—Stops the conveyor belt.

**F. SANDING DRUMS STOP Button**—Stops the sanding drums.

# SECTION 1: SAFETY

## ⚠WARNING

## For Your Own Safety, Read Instruction Manual Before Operating this Machine

**The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.**

**⚠DANGER** **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

**⚠WARNING** **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

**⚠CAUTION** **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

***NOTICE*** **This symbol is used to alert the user to useful information about proper operation of the machine.**

## ⚠WARNING

## Safety Instructions for Machinery

1. **READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
2. **ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
3. **ALWAYS WEAR AN ANSI APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.
4. **ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.
5. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
6. **NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

# ⚠WARNING
# Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.

8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.

9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.

10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power ***OFF*** and allow all moving parts to come to a complete stop before leaving machine unattended.

11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.

12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.

13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.

14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY**. Make sure switch is in OFF position before reconnecting.

15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**

17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery ***ON***.

18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.

19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.

20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.

21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.

22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.

23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."

24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY**.

25. **BE AWARE THAT CERTAIN WOODS MAY CAUSE AN ALLERGIC REACTION** in people and animals, especially when exposed to fine dust. Make sure you know what type of wood dust you will be exposed to and always wear an approved respirator.

# ⚠WARNING
# Additional Safety for Drum Sanders

1. **FEEDING STOCK.** DO NOT allow anyone to stand at the outfeed end when feeding your stock. Never sand more than one piece of stock at a time.

   DO NOT jam the workpiece into the machine during operation. Firmly grasp the workpiece in both hands and ease it into the machine using light pressure.

2. **MINIMUM STOCK DIMENSIONS**. DO NOT sand any stock thinner than 1/16", narrower than 1/8", or shorter than 9". DO NOT sand thin stock by using a "dummy" board under your workpiece.

3. **CLOTHING.** DO NOT wear loose clothing while operating this machine. Roll up or button sleeves at the cuff.

4. **HAND PROTECTION**. DO NOT place hands near, or in contact with, sanding drums during operation. DO NOT allow fingers to get pinched between board and conveyor belt during operation. This may pull the operator's hand into the machine and cause serious injury or death!

5. **INSPECTING WORKPIECES**. Always inspect one workpiece at a time for nails, staples, knots, and other imperfections that could be dislodged and thrown from the machine during sanding operations.

6. **DUST COLLECTION SYSTEM**. Never operate the sander without an adequate dust collection system in place and running.

7. **BE ATTENTIVE**. Never leave the machine running unattended.

8. **REPLACING SANDING PAPER**. Replace sanding paper when it becomes worn or damaged.

9. **EXPERIENCING DIFFICULTIES**. Any problem, with the exception of conveyor belt tracking that is concerned with any moving parts or accessories, must be investigated and corrected with the power disconnected, and after all moving parts have come to a complete stop.

10. **MAINTENANCE AND ADJUSTMENTS**. Never attempt to adjust conveyor belt tracking when the sanding drums are running. Perform machine inspections and maintenance service promptly when called for. Disconnect power before performing maintenance or adjustments on the sander.

11. **RESPIRATOR AND SAFETY GLASSES.** Always wear a respirator and safety glasses while operating the machine. Dust and chips are created when sanding. Some debris will be ejected, becoming hazards to the eyes and lungs.

## ⚠WARNING

**Like all machines there is danger associated with the Model G0449/G0450. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.**

## ⚠CAUTION

**No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.**

# SECTION 2: CIRCUIT REQUIREMENTS

## G0449

**⚠WARNING**

**Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. DO NOT connect the machine to the power source until instructed to do so.**

### Amperage Draw

The 10 HP motor on the Model G0449 will draw the following amps:

Main Motor .....44 Amps
Feed Motor .....2½ Amps

### Circuit Requirements

Only connect your machine to a circuit that meets the requirements below. Always check to see if the wires and circuit breaker in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician.

Minimum Circuit Requirement .....60 Amp

### Minimum Cord Requirements

A cord is not provided with your machine. For 220V single-phase operation, use the following type of cord (not to exceed 50 ft.):

Cord.....3 wire
Gauge..... 4 Gauge

**⚠CAUTION**

**A fire may occur if your particular electrical configuration does not comply with local and state codes. The best way to ensure compliance is to check with your local municipality or a qualified electrician.**

## G0450 at 220V

**⚠WARNING**

**Serious personal injury could occur if you connect your machine to the power source before you have completed the set up process. DO NOT connect the machine to the power source until instructed to do so.**

### 220V Pre-Wired

The Model G0450 is prewired for 220V 3-phase operation, but can be rewired for 440V 3-phase operation if needed.

### Amperage Draw

The Model G0450 has a 15 HP motor that will draw the following amps at 220V 3-phase:

Main Motor at 220V .....40 Amps
Feed Motor at 220V..... 1.3 Amps

### Circuit Requirements

Only connect your machine to a circuit that meets the requirements below. Always check to see if the wires and circuit breaker in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician.

Minimum Circuit Requirement 220V.....60 Amp

### Minimum Cord Requirements

A cord is not provided with your machine. For 220V 3-phase operation, use the following type of cord (not to exceed 50 ft.):

Cord.....4 wire
Gauge..... 4 Gauge

# G0450 at 440V

**WARNING**

**Serious personal injury could occur if you connect your machine to the power source before you have completed the set up process. DO NOT connect the machine to the power source until instructed to do so.**

## 220V Pre-Wired

The Model G0450 is prewired for 220V 3-phase operation, but can be rewired for 440V 3-phase operation if needed.

## Amperage Draw

The Model G0450 has a 15 HP motor that will draw the following amps at 440V 3-phase:

Main Motor at 440V.....20 Amps
Feed Motor at 440V.....0.65 Amps

## Circuit Requirements

Only connect your machine to a circuit that meets the requirements below. Always check to see if the wires and circuit breaker in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician.

Minimum Circuit Requirement 440V.....30 Amp

## Minimum Cord Requirements

A cord is not provided with your machine. For 440V 3-phase operation, use the following type of cord (not to exceed 50 ft.):

Cord.....4 wire
Gauge..... 8 Gauge

**CAUTION**

**A fire may occur if your particular electrical configuration does not comply with local and state codes. The best way to ensure compliance is to check with your local municipality or a qualified electrician.**

# Power Connection

Because of the high amperage draw from this machine, we recommend that you hardwire it directly to your circuit breaker and install a locking shut-off lever (see **Figure 3**) near the machine as a way to quickly disconnect the power and prevent accidental starting.

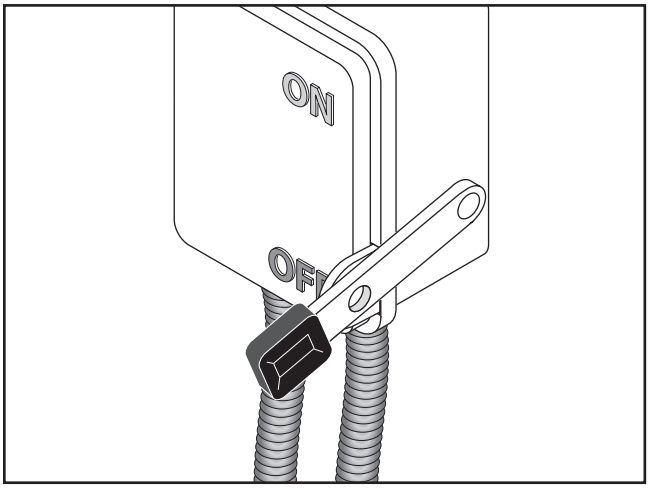



**Figure 3.** A power disconnect is preferable to high current plugs and receptacles.

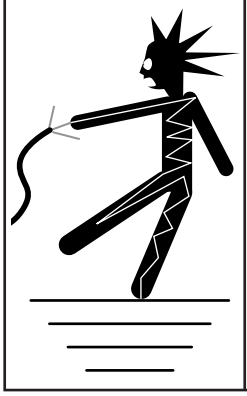
# Phase Converter with G0450

When using a phase converter, the power from the manufactured power leg (sometimes called the wild wire) can fluctuate. Connect the manufactured power leg to the L2 terminal to prevent damage to the transformer. The wire from the L2 terminal can handle some fluctuation because it goes directly to the motor. The power going to the L1 and L3 terminals goes to the controls and must be consistent to prevent damage.

# Grounding

In the event of an electrical short, grounding reduces the risk of electric shock. The grounding wire in the power cord must be properly connected to the grounding prong on the plug; likewise, the outlet must be properly installed and grounded. All electrical connections must be made in accordance with local codes and ordinances.

Improper connections of the electrical-grounding conductor increases the risk of electric shock. Check with a qualified electrician or one of our service personnel if you do not understand the grounding instructions, or if you doubt the machine is properly grounded.



**⚠WARNING**

**Electrocution or fire could result if this machine is not grounded correctly or if your electrical configuration does not comply with local and state codes. Ensure compliance by checking with a qualified electrician!**

# Extension Cords

Because of the high amperage draw from this machine, we do not recommend the use of extension cords. Instead, position your equipment near installed wiring to eliminate the need for extension cords.

# Rewiring to 440V

The Model G0450 can be rewired for 440V operation. This rewiring job consists of replacing the existing control panel box with a 440V control panel box and rewiring the motor.

The 440V conversion kit can be purchased as #P0450253 by calling (800) 523-4777.

This procedure takes moderate electrical skill and the rewiring job must be inspected by a qualified electrician before connecting to power.

**To rewire the Model G0450 for 440V operation:**

1. **Disconnect the saw from the power source!**

2. Rewire both motors according to the diagrams on the inside of the junction box cover.

   **Note:** *These drawings are also shown in* ***Figure 55*** *for your reference, but always use the drawings in the junction box cover, as they will reflect any changes to the machine since the time of writing.*

3. Open the electrical panel and familiarize yourself with **Figures 54 & 56** for component locations.

4. Keeping track of the wire locations, disconnect all power and motor wires, so the control panel box can be completely removed.

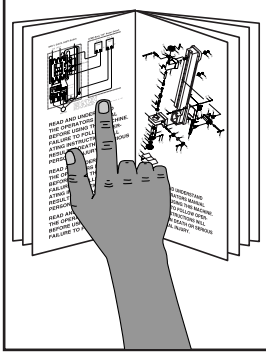
5. Remove and replace the control panel box with the box from the 440V conversion kit.

6. Connect the power and motor wires to the new control panel box in the same manner that they were removed from the old box.

7. Have the wiring job inspected by a qualified electrician.

# SECTION 3: SET UP

## Set Up Safety

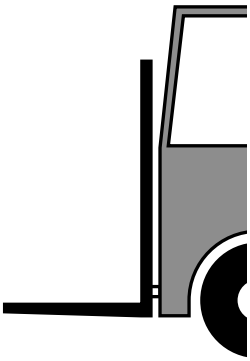


**⚠WARNING**

**This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!**

**⚠WARNING**

**Wear safety glasses during the entire set up process!**



**⚠WARNING**

**The Model G0449/G0450 has a shipping weight of 1190/1275 lbs. Serious personal injury may occur if safe moving methods are not followed. To be safe, get assistance and use power equipment when moving the crate and removing the machine from the crate.**

## Items Needed For Set Up

The following items are needed to complete the set up process, but are not included with your machine:

| Description | Qty |
|---|---|
| • Safety Glasses (for each person) | 1 |
| • Power Lifting Equipment (forklift) | 1 |
| • Lifting Straps (min. 1500 lb capacity) | 2 |
| • An Assistant | 1 |
| • Open End Wrench or Socket 13mm | 1 |
| • Power Cord (length as needed) | 1 |
| • Power Disconnect Box | 1 |
| • Dust Collection System | 1 |
| • 4" Dust Hoses (length as needed) | 4 |
| • 4" Hose Clamp | 4 |

## Unpacking

The Model G0449/G0450 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, you should inventory the contents.

# Inventory

After all the parts have been removed from the box, you should have the following items:

| Inventory: (Figure 4) | Qty |
|---|---|
| **A.** Drum Sander | 1 |
| **B.** Control Panel | 1 |
| **C.** Top Cover | 1 |
| **D.** Spring Tension Tools | 2 |
| **E.** Handwheel | 1 |

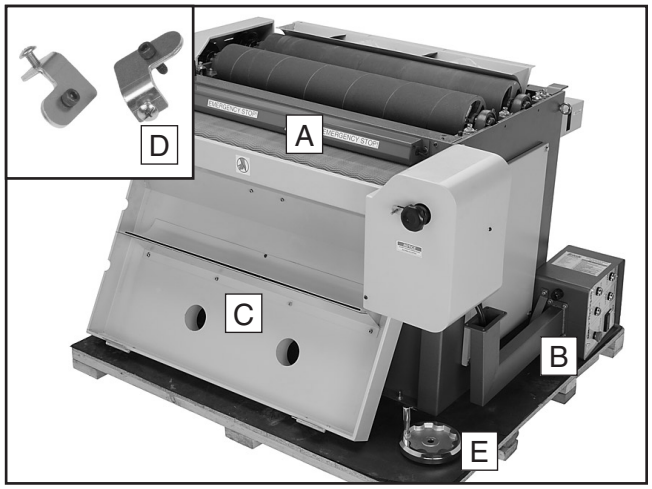



**Figure 4.** Model G0449/G0450 inventory.

**Tools:**

- Phillips Screwdriver ..... 1
- Hex Wrenches 3, 4, 5mm ..... 1 Ea

In the event that any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.

# Site Considerations

## Floor Load

The Model G0449/G0450 weighs 1058/1143 lbs. and has a base footprint of 45½" W x 28½" D. Most commercial floors are suitable for your machine. Some residential floors may require additional reinforcement to support both the machine and operator.

## Working Clearances

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your saw. See **Figure 5** for the minimum working clearances of the Model G0449/G0450.

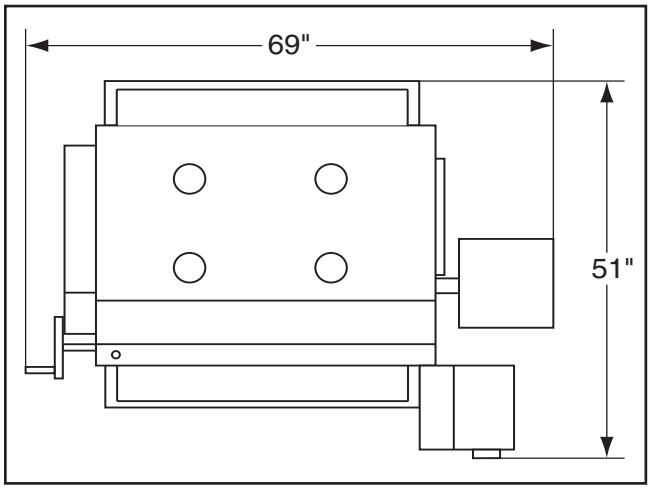
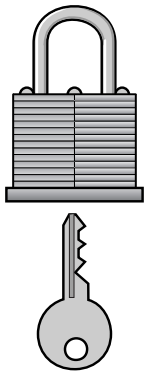



**Figure 5.** Working clearances.



**CAUTION**

**Unsupervised children and visitors inside your shop could cause serious personal injury to themselves. Lock all entrances to the shop when you are away and DO NOT allow unsupervised children or visitors in your shop at any time!**

# Attaching Top Cover

**Components and Hardware Needed:** **Qty**
Drum Sander ..... 1
Top Cover ..... 1

**To attach the top cover to the drum sander:**

1. Remove the four button head cap screws and washers shown in the rear view of **Figure 6**.

2. Remove the two button head cap screws and washers shown in the front view of **Figure 6**.

**Figure 6.** Top cover cap screws.

3. Place the top cover on the sander and attach the hinges with the screws and washers removed in **Step 1**.

4. Secure the front of the top cover with the two button head cap screws and washers removed in **Step 2**.

# Mounting Control Panel

**Components and Hardware Needed:** **Qty**
Control Panel ..... 1

**To mount the control panel:**

1. Remove the bolts, lock washers, and flat washers shown in **Figure 7**.

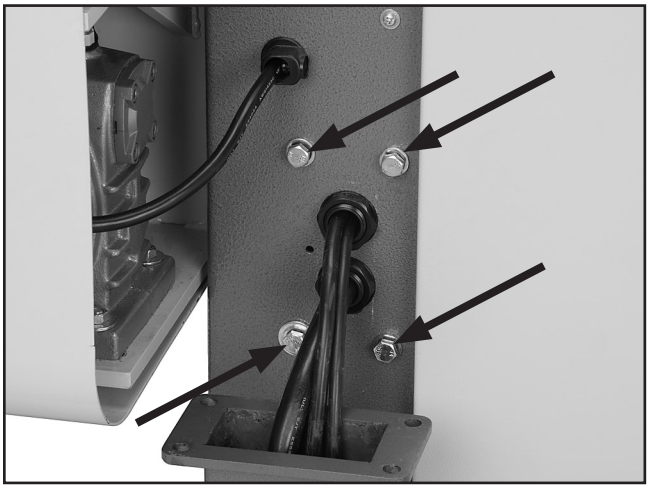


**Figure 7.** Control panel mounting bolts.

2. Lift the control panel into place and secure it with the bolts, lock washers, and flat washers removed in **Step 1**.

3. Attach the brace from the control panel to the sander as shown in **Figure 8**.

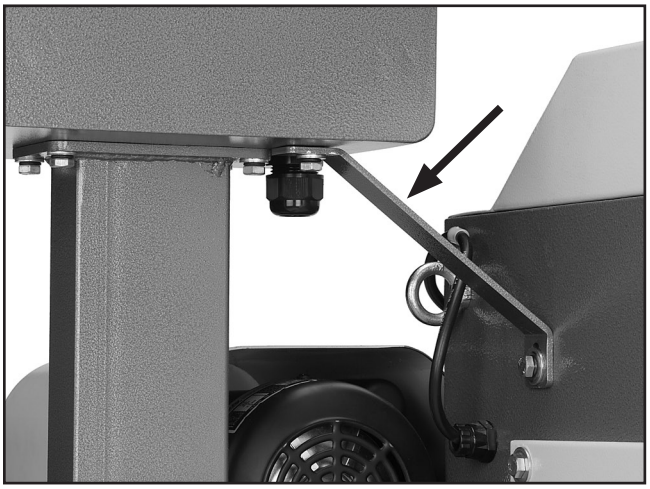
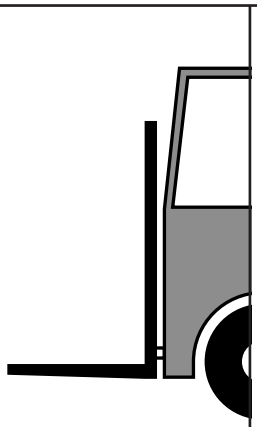


**Figure 8.** Control panel brace.

# Placing Sander



**⚠WARNING**

**The Model G0449/G0450 has a shipping weight of 1190/1275 lbs. Serious personal injury may occur if safe moving methods are not followed. To be safe, get assistance and use power equipment when moving the crate and removing the machine from the crate.**

**⚠WARNING**

**Use lifting straps with a combined minimum of 1500 lbs. lifting capacity. If lifting straps break, serious personal injury may occur.**

**To place the sander in a permanent location:**

1. Unbolt the sander from the pallet.

2. Position the forklift forks directly above the sander. Place two lifting straps with hooks on the ends over the forklift forks and slide the hooks into the points shown in **Figure 9**.

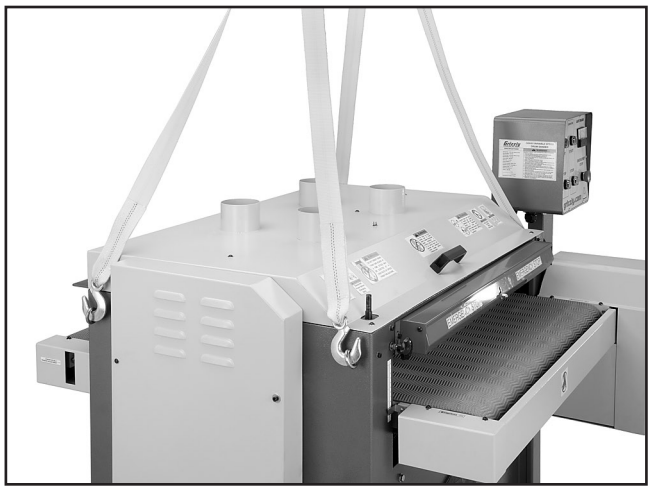


**Figure 9.** Lifting the sander.

3. Lift the sander and move it to your predetermined location. DO NOT lift it any higher than is necessary to clear the floor.

# Mounting to Floor

Although not required, we recommend that you mount your new machine to the floor. Because this is an optional step and floor materials may vary, floor mounting hardware is not included.

## Bolting to Wood Floors

The most secure method of mounting this drum sander to a wood floor is using ⅜" hex bolts with flat washers, and securing the bolts from under the floor with flat washers, lock washers and hex nuts. Use lag bolts with washers only if you do not have access to the underside of the floor.

## Bolting to Concrete Floors

Lag shield anchors with ⅜" lag bolts or anchor studs (**Figure 10**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

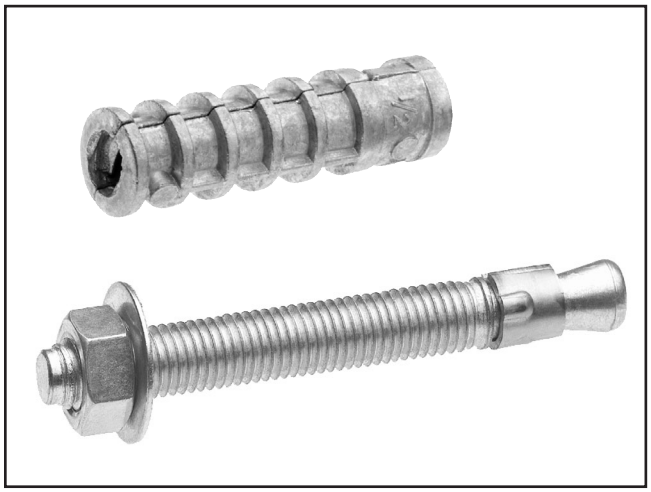


**Figure 10.** Concrete anchor options.

***NOTICE***

**Concrete anchor studs are stronger and more permanent alternatives to lag shield anchors; however, they will stick out of the floor, causing a tripping hazard if you decide to move your machine at a later point.**

# Installing Handwheel

**Components and Hardware Needed:** **Qty**
Handwheel ..... 1

**To mount the handwheel:**

1. Place the handwheel over the shaft shown in **Figure 11** and tighten the setscrew in the handwheel hub.

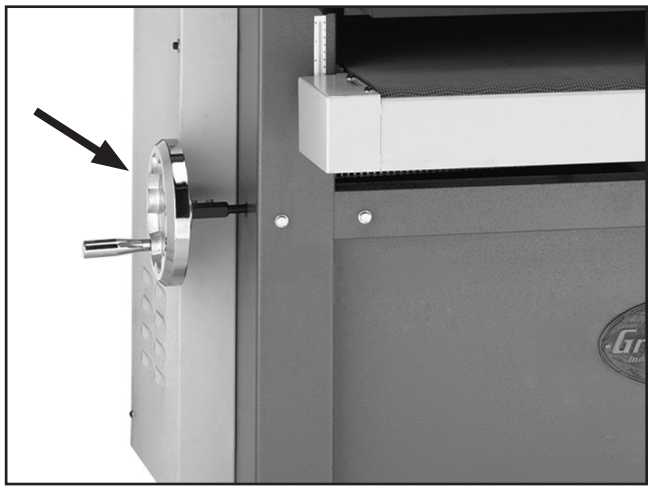


**Figure 11.** Handwheel location.

# Dust Collection

This drum sander requires a minimum of 1600 CFM at the sander. We recommend using a dust collection system that produces a minimum of 2000 CFM. A fine layer of dust will be present on your stock as it comes out of the sander. This is normal.

**Components and Hardware Needed:** **Qty**
Dust Hoses 4" (not included) ..... Length Varies
Hose Clamps (not included) ..... Varies
Dust Collection System (not included) ..... 1

**To connect the dust ports to a dust collector:**

1. Attach 4" dust collection hoses to the dust ports shown in **Figure 12** and secure them with hose clamps.

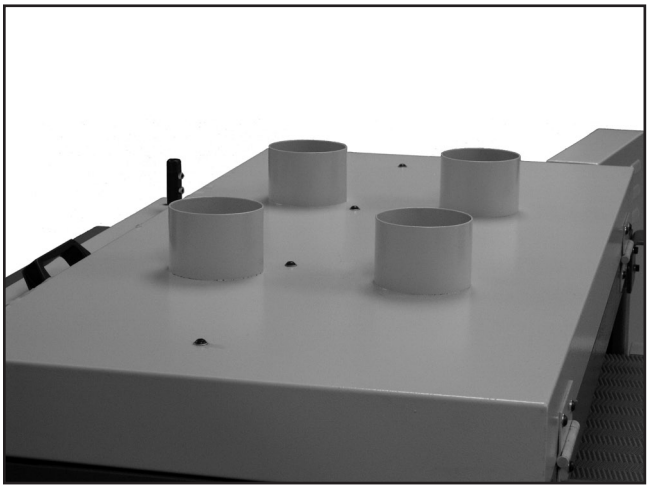


**Figure 12.** Dust port locations.

# Power Cord

Before installing the power cord, read through **SECTION 2: CIRCUIT REQUIREMENTS** to check that your setup follows the safety and circuit requirements, and the power cord and power disconnect that you have chosen meet the requirements for this machine.

**Components and Hardware Needed:** **Qty**
Power Cord (Not Included).....1

**To connect the sander to the power source:**

1. Remove the screws securing the control panel and lift off the face plate.

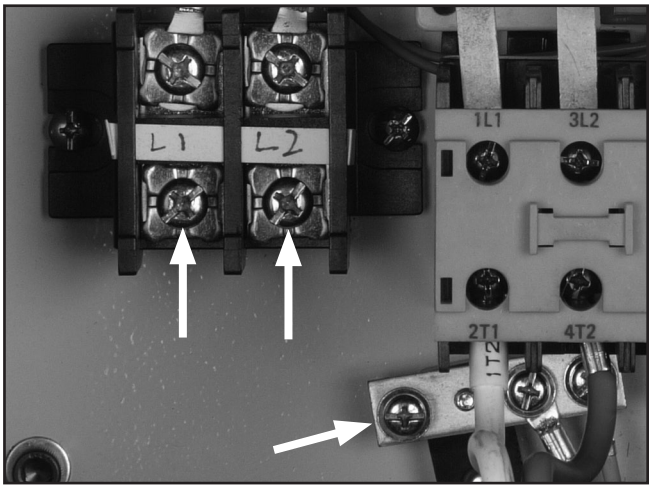



**Figure 13.** G0449 control panel wiring.

2. Feed the power cord through the strain relief on the bottom of the control panel, tighten the strain relief, connect the cord to the terminals shown in **Figure 13** or **14,** and close the control panel.

   **Note For Model G0450 Only:** *When using a phase converter, connect the manufactured power leg to the L2 terminal* (**Figure 14**)*. The L2 terminal can handle power fluctuation because it is wired directly to the motor. The other wires connect to the controls and must be consistent to prevent damage.*

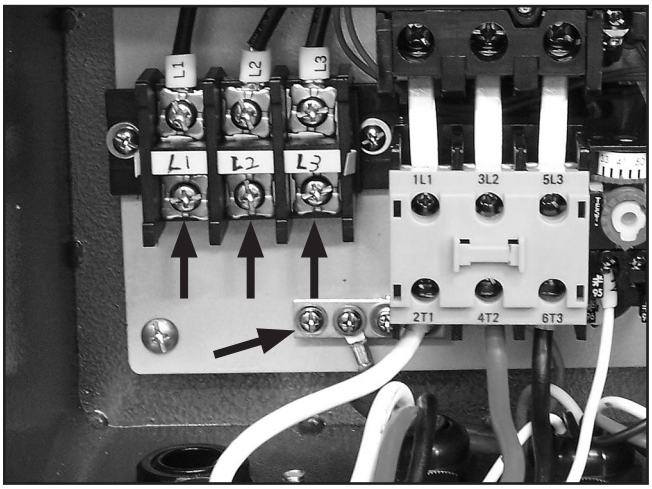



**Figure 14.** G0450 control panel wiring.

3. **Shut off the main power at the power source circuit breaker** and install the cord to the power disconnect.

# Gear Oil Check

It is important to make sure the gear box has oil in it before running the sander for the first time. This is to ensure the gears do not burn up.

**To check the gear oil:**

1. Remove the feed motor cover, and check the sight glass shown in **Figure 15** to make sure gear oil is present.

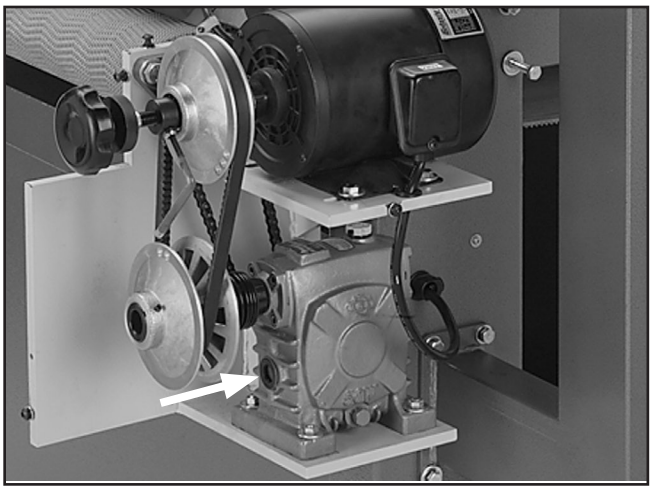


**Figure 15.** Location to check gear box oil level.

2. If the gearbox oil level is low, follow the steps on **Page 26** to refill the oil.

# Test Run

Now that the machine is connected to the power source, it is important to perform a test run to make sure all the controls are working properly.

## ⚠WARNING

**Before starting the sander, make sure you have performed the preceding assembly and adjustment instructions, and you have read through the rest of the manual and are familiar with the various functions and safety issues associated with this machine. Failure to follow this warning could result in serious personal injury or even death!**

**To test run the sander:**

1. Put on safety glasses and make sure any bystanders are out of the way and also wearing safety glasses.

2. Rotate the red EMERGENCY STOP button until it springs up.

3. Press the conveyor START button.

   —If any problems occur, press the EMERGENCY STOP button.

   —For Model G0450 only: If the conveyor belt is rotating backwards, disconnect the sander from power and exchange wires L1 & L3 in the control panel.

4. Press the SANDING DRUMS START button.

   —If any problems occur, press the EMERGENCY STOP button.

Investigate and correct any problems before operating the machine further. If you need help, refer to the **Troubleshooting** section in the back of this manual or contact Tech Support at (570) 546-9663.

# Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory and no further setup is required to operate your machine.

However, because of the many variables involved with shipping, some of these adjustments may need to be repeated to ensure optimum results. Keep this in mind as you start to use your new drum sander.

**Step-by-step instructions for these adjustments can be found in SECTION 7: SERVICE ADJUSTMENTS.**

1. V-Belt Service (**Page 30**). Perform after the first 16 hours.

2. Conveyor Tensioning & Tracking (**Page 32**).

3. Drum Adjustments (**Page 33**).

4. Pressure Roller Height (**Page 36**).

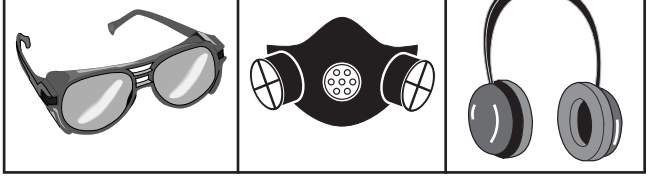
5. Dust Scoop Position (**Page 37**).

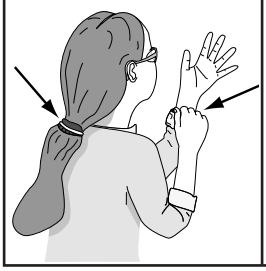
# SECTION 4: OPERATIONS

## Operation Safety

**⚠WARNING**

**Damage to your eyes, lungs, and ears could result from using this machine without proper protective gear. Always wear safety glasses, a respirator, and hearing protection when operating this machine.**





**⚠WARNING**

**Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.**

***NOTICE***

**If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.**

## Depth of Cut

The optimum depth of cut will vary based on the type of wood, feed rate, and sandpaper grit. Under most sanding conditions, the depth should not exceed 1/64" or 0.4mm (approx. 3/4 turn of the handwheel). Each full turn of the table height handwheel raises the conveyor table approximately 0.020" (0.5mm). Attempts to remove too much material can cause jamming, wood burning, rapid paper wear or tearing, poor finish and belt slippage.

**To set the depth of cut:**

1. Rotate the table height handle (**Figure 16**) until the table is too low, then raise the table, allowing a gap between the workpiece and the sanding drum.

   **Note:** *When adjusting the table to sand a thicker workpiece, lower and then raise the table to remove backlash from the adjustment mechanism.*

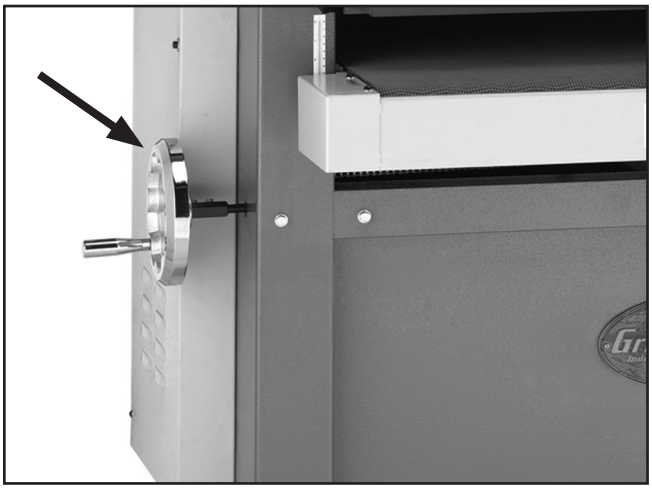


**Figure 16.** Table height handwheel.

2. Start the conveyor and sanding drums and feed the workpiece into the sander. SLOWLY raise the conveyor table until the workpiece makes light contact with the sanding drums. This is the correct height to begin sanding the workpiece.

# Variable Speed

The variable speed knob allows you to increase the feed rate from 6–18 FPM. The correct speed to use depends on the type of stock you are using (hardwood vs. softwood) and the stage of finish you are at with that workpiece.

As a general rule, a slower feed rate will sand the surface smoother, but runs the risk of burning the wood; a faster feed rate will remove material faster, but runs the risk of overloading the motor. Use trial-and-error to determine the best settings for your specific applications.

**To adjust the conveyor speed:**

1. Start the conveyor (DO NOT adjust conveyor speed when the conveyor motor is ***OFF***).

***NOTICE***

**Adjusting the variable speed when the conveyor motor is *OFF* can damage the V-belt and the adjusting mechanism.**

2. Rotate the variable speed knob (**Figure 17**) counterclockwise to increase the feed speed, or clockwise to decrease the feed speed.

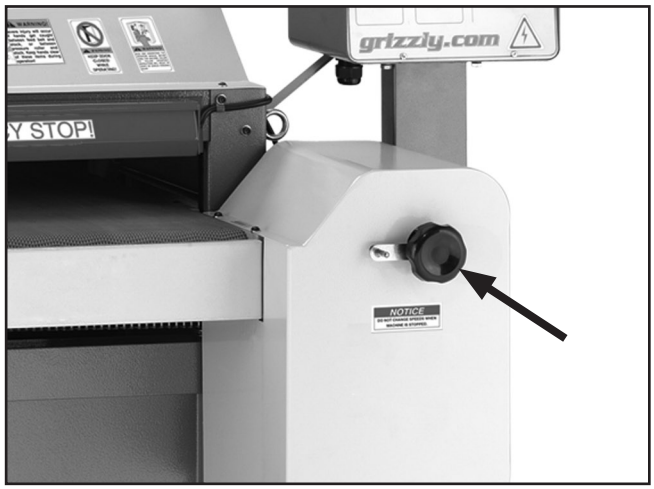



**Figure 17.** Variable speed knob.

# Sanding

**WARNING**

**DO NOT sand more than one board at a time. Minor variations in thickness can cause one board to be propelled by the rapidly spinning sanding drum and ejected from the machine. NEVER stand directly in front of the outfeed area of the machine. Failure to do so could result in severe personal injury.**

The digital readout displays the combined amperage draw of the motors. The number on the digital readout increases when a load is placed on the machine. Use this meter to avoid pushing your machine to its maximum load; instead of maxing out your machine, make multiple passes or install a coarser grit paper. Since various types of wood will cause different loads, use trial-and-error to determine the best settings for your application.

**G0449 Maximum Amp Load .....47A**
**G0450 Maximum Amp Load at 220V .....39A**
**G0450 Maximum Amp Load at 440V .....20A**

**To sand a workpiece:**

1. Adjust the table height according to the instructions in **Depth of Cut** on **Page 21**.

2. Start the dust collector, the drum motor, and the feed motor.

3. Feed the workpiece through the sander and monitor the amp meter; if it approaches the maximum amp load, lower the conveyor table. Retrieve the workpiece by standing at the side—not at the outfeed end.

4. Run wide stock through two or three times without adjusting the table height. Turn the stock 180° between passes to ensure an even cut.

# Sanding Tips

- Replace the sandpaper with a higher grit to achieve a finer finish.
- Raise the table with a maximum of ¾ turn of the height handle until the workpiece is the desired thickness.
- Reduce snipe when sanding more than one board of the same thickness by feeding them into the sander with the front end of the second board touching the back end of the first board.
- Feed boards into the sander at different points on the conveyor to maximize sandpaper life and prevent uneven conveyor belt wear.
- DO NOT sand boards less than 9" long or less than 1/16" to prevent damage to the workpiece and the drum sander.
- Extend the life of the sandpaper by regularly using a PRO-STICK® sanding pad (**Page 25**).
- When sanding workpieces with irregular surfaces, such as cabinet doors, take very light sanding passes to prevent gouges. When the drum moves from sanding a wide surface to sanding a narrow surface, the load on the motor will be reduced, and the drum will speed up, causing a gouge.
- DO NOT edge sand boards. This can cause boards to kickback, causing serious personal injury. Edge sanding boards also can cause damage to the conveyor belt and sandpaper.
- When sanding workpieces with a bow or crown, place the high point up (prevents the workpiece from rocking) and take very light passes.
- Feed the workpiece at an angle to maximize stock removal and sandpaper effectiveness, but feed the workpiece straight to reduce sandpaper grit scratches for the finish passes.

# Choosing Sandpaper

There are many types of sanding belts to choose from. We recommend Aluminum Oxide for general workshop environments. Below is a chart that groups abrasives into different classes, and shows which grits fall into each class.

| Grit | Class | Usage |
|---|---|---|
| 36 | Extra Coarse | Rough sawn boards, thickness sanding, and glue removal. |
| 60 | Coarse | Thickness sanding and glue removal. |
| 80–100 | Medium | Removing planer marks and initial finish sanding. |
| 120–180 | Fine | Finish sanding. |

The general rule of thumb is to sand a workpiece with progressively higher grit numbers, with no one grit increase of more than 50. Avoid skipping grits; the larger the grit increase, the harder it will be to remove the scratches from the previous grit.

The Model G0449/G0450 allows you to place a different grit sandpaper on each drum. The first drum should have a coarser grit than the second. Usually this translates into combinations of successive group types. A common selection for stock that is planed before being sanded is a 100/150 grit combination.

Ultimately, the type of wood you use and your stage of finish will determine the best grit types to install on your sander.

# Paper Replacement

The Model G0449/G0450 is designed for 6" wide sandpaper rolls. Turn to **SECTION 5: ACCESSORIES** on **Page 25** for grit selection and model numbers.

| **Tools Needed:** | **Qty** |
|---|---|
| Phillips Screwdriver #2 | 1 |
| Spring Tension Tools | 2 |

**To change the paper:**

1. **Disconnect the machine from the power!**

2. Lift the top cover and place a screwdriver as shown in **Figure 18**.

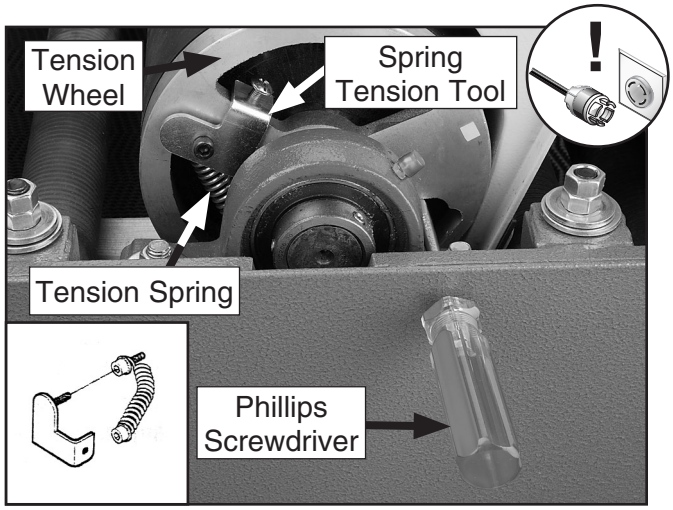



**Figure 18.** Locking the tension wheel.

3. Rotate the sanding drum to stretch the tension spring. Slide the cap screw in the spring tension tool into the head of the cap screw securing the spring (see the inset box in **Figure 18**), then place the spring tension tool over the arm of the tension wheel as shown in **Figure 18**.

4. Remove the screwdriver, then lightly tighten the Phillips head screw in the spring tension tool to secure it to the tension wheel.

5. Repeat **Steps 2–4** on the opposite end of the sanding drum, then remove the spring clips.

   **Note:** *Replace the paper on each drum individually. Once the paper is removed the drums can be slippery and hard to rotate.*

6. Unwind the old sandpaper and use it as a pattern, or use the pattern in **Figure 19**, to cut the sandpaper to the necessary shape.

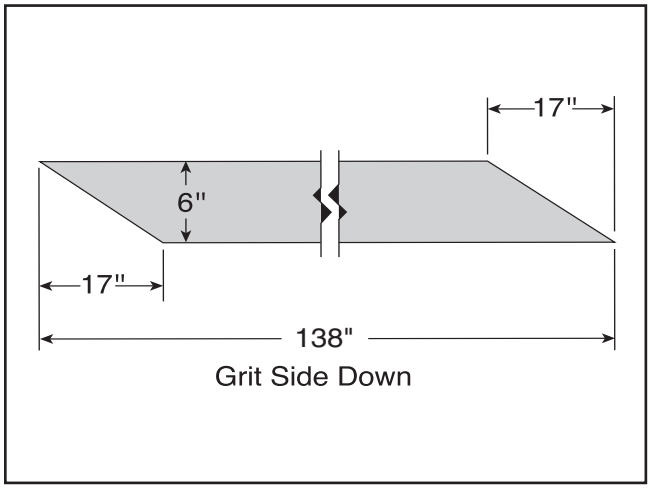



**Figure 19.** Sandpaper pattern.

7. Start with the left side of the drum, fold the corner of the sandpaper into the spring clip, then install the clip onto the tension wheel. Tap the clip with a hammer or mallet to ensure it is seated.

   **Note:** *DO NOT pound the clip over the sandpaper. It is not necessary to drive the clip completely on, just make sure it is secure. Too much force will break the clip!*

8. Tightly spiral the paper onto the drum, ensuring there are no bubbles or overlapping edges. Try to leave a uniform 3⁄16" gap between the spirals as you wind the paper around the drum. This will allow the paper to move and stretch slightly and will decrease the likelihood of overlapping and tearing.

9. Fold the corner of the loose end into the spring clip, then install the clip onto the tension wheel on the right side.

10. Remove the spring tension tool from the ends of the sanding drum to tension the paper.

11. Repeat **Steps 2–10** for the other drum.

# SECTION 5: ACCESSORIES

**Aluminum Oxide Sanding Rolls, 6" x 50'**
**H4776—36 Grit:** Use for rough sawn boards, thickness sanding, and glue removal.
**G2787—60 Grit:** Use for thickness sanding and glue removal.
**H4777—80 Grit:** Use for removing planer marks and initial finish sanding.
**G2788—100 Grit:** Use for removing planer marks and initial finish sanding.
**H4778—120 Grit:** Use for finish sanding.
**G2789—150 Grit:** Use for finish sanding.

**H2499—Small Half-Mask Respirator**
**H3631—Medium Half-Mask Respirator**
**H3632—Large Half-Mask Respirator**
**H3635—Disposable Cartridge Filter Pair P100**
Wood dust is now considered a known carcinogen and has been linked to nasal cancer and severe respiratory illnesses. If you work around dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!

**Figure 20.** Half-mask respirator and disposable cartridge filters.

**Call 1-800-523-4777 To Order**

**PRO-STICK® Sanding Pad**
Extend the life of your sandpaper! Just feed this crepe-rubber cleaning pad through your drum sander to remove dust build-up from the sandpaper without damage.

| Size | Model |
|---|---|
| 15" X 20" X 1⅛" | H2845 |

**Figure 21.** PRO-STICK® sanding pad.

**G8127—Power Twist® V-Belt - 5/8" x 48"**
Smooth running with less vibration and noise than solid belts. The Power Twist® V-belts can be customized in minutes to any size—just add or remove sections to fit your needs. Size: ⅝" x 48"; replaces all "B" sized V-belts. Requires three Power Twist® V-belts to replace the stock V-belts on your Model G0449/G0450.

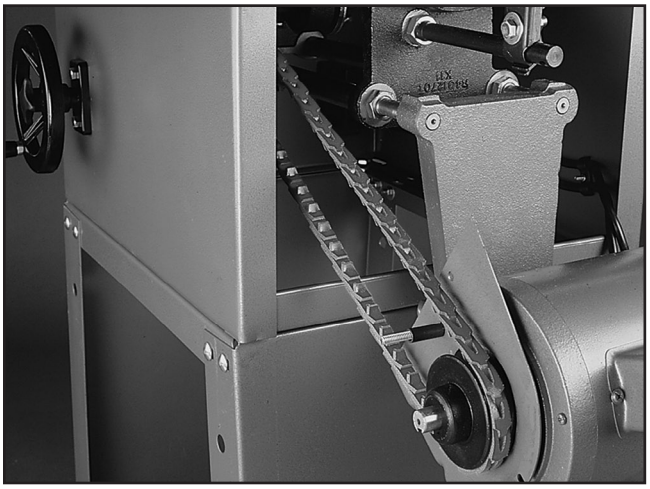
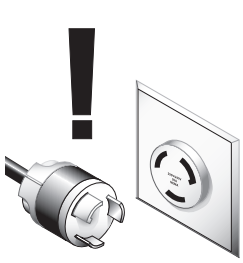


**Figure 22.** G8127 Power Twist® V-Belt.

# SECTION 6: MAINTENANCE



**⚠WARNING**

**Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.**

## Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

**Daily Check:**
- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords or plugs.
- Damaged V-belts.
- Any other unsafe condition.

**⚠WARNING**

**DO NOT attempt to investigate or adjust any features of the machine while it is running. Wait until the machine is turned *OFF*, unplugged, and all working parts have come to a rest before you do anything!**

## Cleaning

Cleaning the Model G0449/G0450 is relatively easy. From time to time vacuum wood dust off of the internal components, especially the motor.

## Lubrication

Moving parts such as chains should be lubricated periodically with a light machine oil. Motor bearings need no lubrication.

Use only adequate lubrication. Too much lubricant will attract dirt and sawdust and will clog the chain mechanism.

**Pillow Bearing**: Must be lubricated every 20 hours of operation. Use a high-quality, lithium-based grease. A grease fitting (**Figure 23**) is located on the top of each pillow bearing.

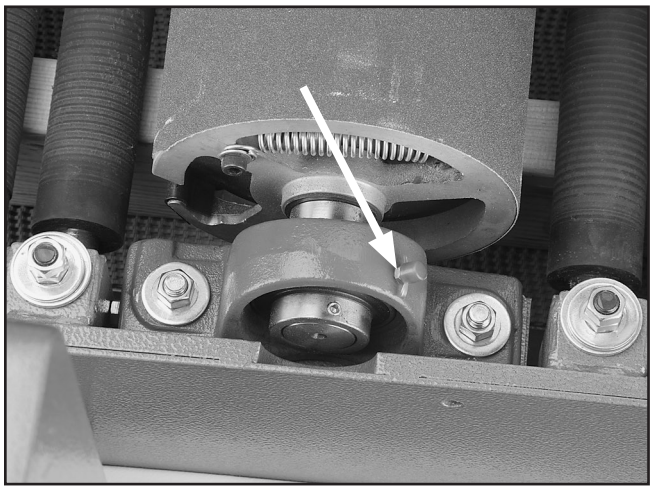


**Figure 23**. Location to lubricate pillow bearing.

**Gearbox:** The oil in the gearbox should be changed every 500 hours with new SAE 80W gear oil.

1. Remove the motor cover, loosen the four hex bolts that secure the gear box to the motor bracket, and remove the V-belt.

2. Slide the gearbox out, remove the fill plug (**Figure 24)**, remove the drain plug**,** drain the oil, and reinstall the drain plug.

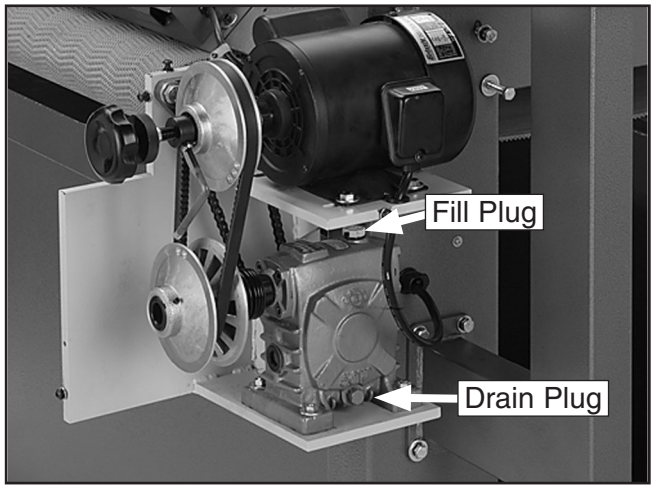



**Figure 24**. Lubricating gear box.

3. Add new oil, then reinstall the fill plug.

**Table Lift Screws**: These should be lubricated with lithium grease every six months.

Clean the table lift screws (**Figure 25**) and rub lithium grease onto the threads. Move the table up or down to spread the grease thoroughly over the threads.

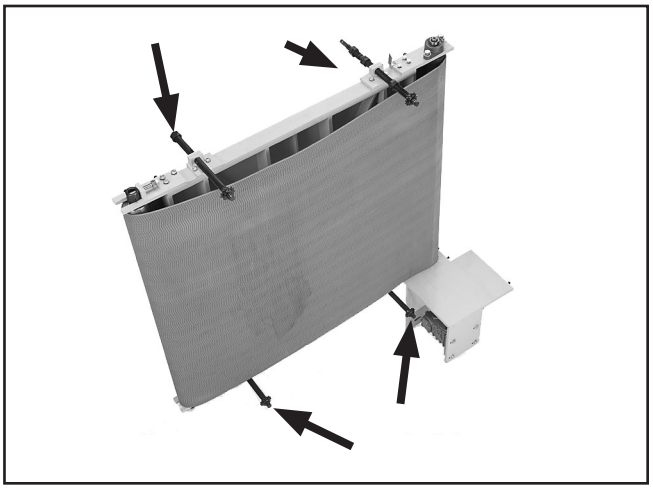


**Figure 25**. Table lift screws.

**Worm Gear**: Place a dab of lithium grease on the worm gear threads (**Figure 26**) once a year.

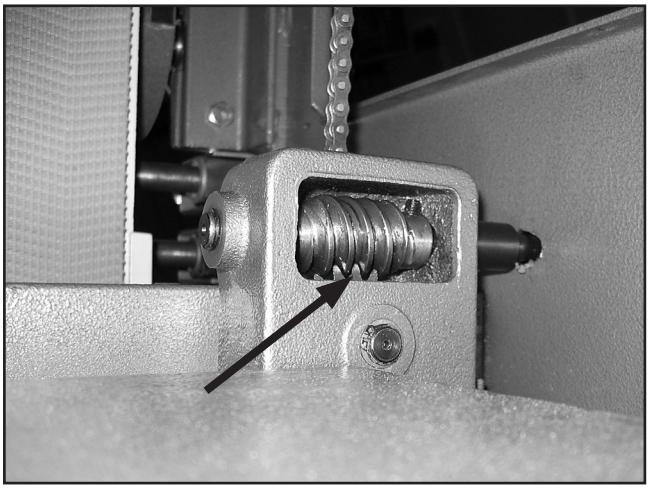


**Figure 26**. Worm gear threads.

## ⚠WARNING

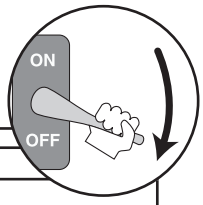
**Failure to routinely inspect your drum sander for damage and wear could result in unsatisfactory work results, premature component or machinery failure, or operator injury. We recommend you create a checklist for routine inspection and maintenance. Remember to always disconnect the drum sander from its power source before attempting to inspect, adjust, or repair this machine!**

# SECTION 7: SERVICE

## About Service

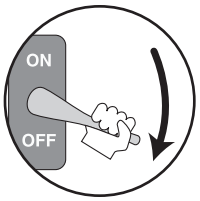
This section is provided for your convenience—it is not a substitute for the Grizzly Service Department. If any adjustments arise that are not described in this manual, you need replacement parts, or you are unsure of how to perform the procedures in this section, then feel free to call our Technical Support line.

## Troubleshooting




| Symptom | Possible Cause | Possible Solution |
|---|---|---|
| Motor will not start. | 1. Low voltage.<br>2. Open circuit in motor or loose connections.<br>3. Start capacitor at fault. | 1. Check power line for proper voltage.<br>2. Inspect all lead connections on motor for loose or open connections.<br>3. Replace start capacitor. |
| Motor will not start; fuses or circuit breakers blow. | 1. Short circuit in line cord or plug. | 1. Repair or replace cord or plug for damaged insulation and shorted wires. |
| Motor fails to develop full power (output of motor decreases rapidly with decrease in voltage at motor terminals). | 1. Power line overloaded with lights, appliances, and other motors.<br>2. Undersized wires or circuits too long.<br>3. General overloading of power company facilities. | 1. Reduce load on power line.<br>2. Increase wire sizes or reduce length of the circuit.<br>3. Request a power check from the power company. |
| Motor overheats. | 1. Motor overloaded.<br>2. Air circulation through the motor restricted. | 1. Reduce load on motor.<br>2. Clean off motor to provide normal air circulation. |
| Motor stalls (resulting in blown fuses or tripped circuit). | 1. Short circuit in motor or loose connections.<br>2. Low voltage.<br>3. Incorrect fuses or circuit breakers in power line.<br>4. Motor overloaded. | 1. Repair or replace connections on motor for loose or shorted terminals or worn insulation.<br>2. Correct the low voltage conditions.<br>3. Install correct fuses or circuit breakers.<br>4. Reduce load on motor. |
| Drums run backwards (G0450 only). | 1. Two of the power wires are reversed (G0450 only). | 1. Switch two of the current carrying wires at the main power block (G0450 only). |
| Machine slows when sanding, making a squealing noise, especially on start-up. | 1. V-belts loose.<br>2. V-belts worn out. | 1. Tighten V-belts (**Page 30**).<br>2. Replace V-belts (**Page 31**). |
| Loud repetitious noise coming from machine. | 1. Pulley setscrews or keys are missing or loose.<br>2. Motor fan is hitting the cover.<br>3. V-belts are defective. | 1. Inspect keys and setscrews. Replace or tighten if necessary.<br>2. Adjust fan cover mounting position, tighten fan, or shim fan cover.<br>3. Replace V-belts (**Page 31**). |
| Vibration when sanding. | 1. Loose drum pillow bearings.<br>2. Worn drum pillow bearings. | 1. Tighten drum pillow bearings.<br>2. Replace drum pillow bearings. |

| Symptom | Possible Cause | Possible Solution |
|---|---|---|
| Grinding, screeching, or rubbing noise when sanding drums are powered up. | 1. Drum bearings lack sufficient grease.<br>2. Drum bearings are worn and need replacement. | 1. Grease the pillow bearings (**Page 26**).<br>2. Replace the drum bearings. |
| Short V-belt lifespan. | 1. Pulleys not aligned correctly.<br>2. Improperly tensioned. | 1. Align pulleys (**Page 31**).<br>2. Properly tension V-belts (**Page 30**). |
| Machine lacks power; drums stop turning under load. | 1. V-belts loose.<br>2. Too much pressure on pressure rollers. | 1. Tighten V-belts (**Page 30**).<br>2. Reduce pressure roller pressure (**Page 36**). |
| Conveyor slips under load. | 1. Conveyor is too loose.<br>2. Too much load. | 1. Tension conveyor (**Page 32**).<br>2. Decrease load. |
| Conveyor tracks to one side; conveyor hits the roller cover. | 1. Conveyor tracking is incorrect. | 1. Track the conveyor so it runs straight (**Page 32**). |
| Workpiece pulls to one side during sanding operations. | 1. One of the sanding drums is not parallel with the table. | 1. Adjust the sanding drums parallel to the table (**Page 33**). |
| Excessive snipe. | 1. Too much pressure from all the pressure rollers.<br>2. Too much pressure from the rear pressure rollers.<br>3. Lack of outfeed support. | 1. Reduce pressure roller pressure (**Page 36**).<br>2. Reduce rear pressure roller pressure (**Page 36**).<br>3. Set up outfeed table or have someone catch the workpiece as it comes out. |
| Workpiece kicks out of sander. | 1. Not enough pressure from the pressure rollers. | 1. Increase pressure roller pressure (**Page 36**). |
| Sandpaper tears off drums during operation. | 1. Nail/staple in workpiece.<br>2. Sandpaper not tightened or fastened correctly.<br>3. Drums not perpendicular to the feed direction. | 1. Sand only clean workpieces.<br>2. Install the sandpaper correctly (**Page 24**).<br>3. Adjust the drums perpendicular to the feed direction (**Page 33**). |
| Table elevation controls are stiff and hard to adjust. | 1. Table lock is engaged.<br>2. Table lift screws are dirty or loaded with sawdust.<br>3. Chain idler roller sprocket lock nuts have been tightened against the roller.<br>4. Elevation handle worm gear is dirty or loaded with sawdust. | 1. Disengage table lock.<br>2. Clean and regrease table lift screws (**Page 27**).<br>3. Adjust the lock nuts on the idler roller sprocket so the roller can spin freely.<br>4. Remove the worm gear box, clean it, and regrease it. |
| Poor dust collection. | 1. The dust scoops are incorrectly positioned.<br>2. Dust collection lines incorrectly sized for this machine.<br>3. Dust collector underpowered or too far away from this machine. | 1. Experiment with the dust scoops moved further in or out for better results. See **Page 37** for instructions on moving a dust scoop.<br>2. Use at least an 8" main line with two 6" branch lines that each Y into 4" at the machine.<br>3. Upgrade your dust collector or decrease the distance from the dust collector to the machine. |



# Gauge Blocks

| Tools Needed: | Qty |
|---|---|
| 6' Long 2x4 | 1 |
| Miter Saw (or Circular Saw) | 1 |
| Jointer | 1 |
| Table Saw | 1 |

The gauge blocks described here will be required to complete most of the service procedures in this section. After you have made them, they can be conveniently stored inside of the sander cabinet for future use.

**To make the gauge blocks:**

**1.** Edge joint the concave edge of the 2x4 flat on a jointer, as shown in **Figure 27**.

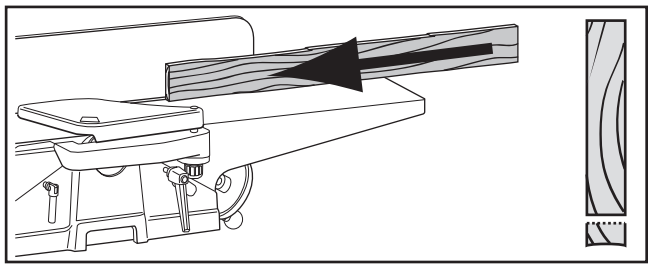


**Figure 27.** Edge jointing on a jointer.

**2.** Place the jointed edge of the 2x4 against the table saw fence and rip cut just enough off the opposite side to square up the two edges of the 2x4, as shown in **Figure 28**.

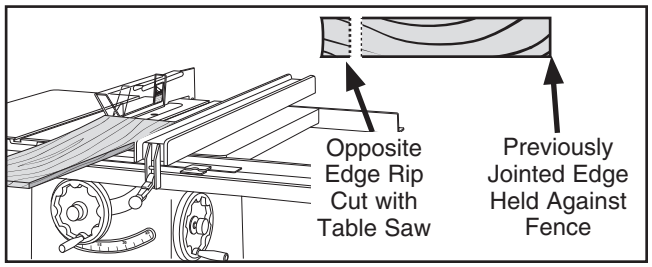



**Figure 28.** Rip cutting on a table saw.

**3.** Cut the 2x4 into two even pieces to make two 36" long wood gauge blocks.

**Note:** *The **Steps 1 & 2** can be skipped, but having these wood gauge blocks at an even height is critical to the accuracy of your overall adjustments.*

# V-Belt Service

| Tools Needed: | Qty |
|---|---|
| Hex Wrench 5mm | 1 |
| Wrench 19mm | 2 |
| Straightedge (at least 24") | 1 |
| Ruler | 1 |

## Tension

New V-belts often stretch and loosen up during the first 16 hours of use. After this period, they should be inspected and re-tensioned if necessary.

Proper tension is important for optimum power transmission. However, too much tension may cause premature bearing failure.

The correct V-belt tension is achieved when the V-belts can be deflected ½"–¾" when pushed in the middle with moderate pressure. See **Figure 29** for an example of how to perform a V-belt deflection test with a straightedge and ruler.

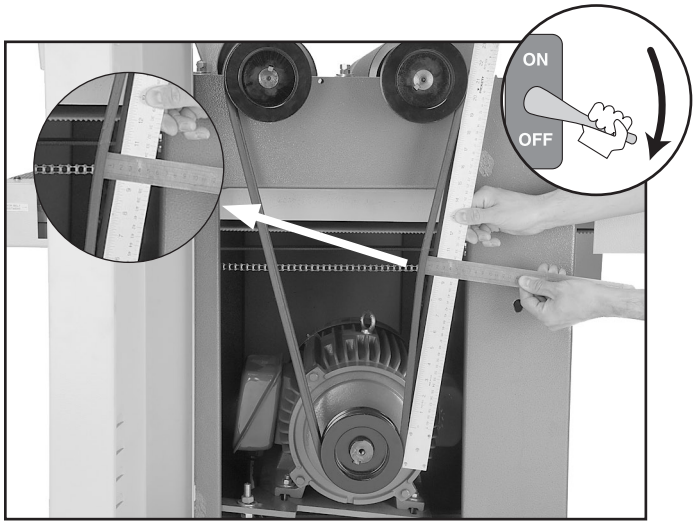



**Figure 29.** Checking V-belt tension with a straightedge and a ruler.

**To adjust V-belt tension:**

1. **Disconnect power to the sander!**

2. Open the side cover.

3. Turn the motor mount nuts in the direction shown in **Figure 30** to loosen or tighten the V-belts.

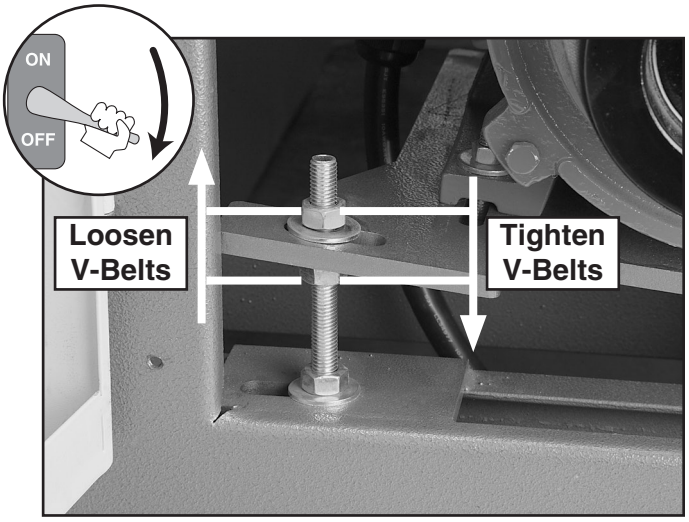



**Figure 30.** V-belt tension controls.

## Removal/Replacement

Replace the V-belt if you notice fraying, cracking, glazing, or any other damage. A worn/damaged V-belt will not provide optimum power transmission from the motor to the drums.

V-belt removal and replacement is simply a matter of loosening the V-belts until you can roll them off the pulleys, replacing them with a MATCHED set, then re-tensioning them.

**Note:** *A matched set means all the V-belts are the same size and also have the same serial number.*

## Pulley Alignment

Pulley alignment is another important factor in power transmission and belt life. The pulleys should be parallel to each other and in the same plane (coplaner) for optimum performance.

Each pulley can be adjusted by loosening the set screw that secures the pulley to the shaft, sliding the pulley in/out, and retightening the set screw to lock the pulley in place.

**To align the pulleys:**

1. **Disconnect power to the sander!**

2. Open the pulley cover.

3. Remove the V-belts.

4. Place a straightedge across the face of the motor pulley and front drum pulley to check the alignment. The straightedge should sit evenly on the top and bottom part of both pulleys, as shown in **Figure 31**.

5. Repeat **Step 4** with the straightedge placed against the motor pulley and rear drum pulley.

6. Adjust the pulleys as necessary until they are all coplanar with each other.

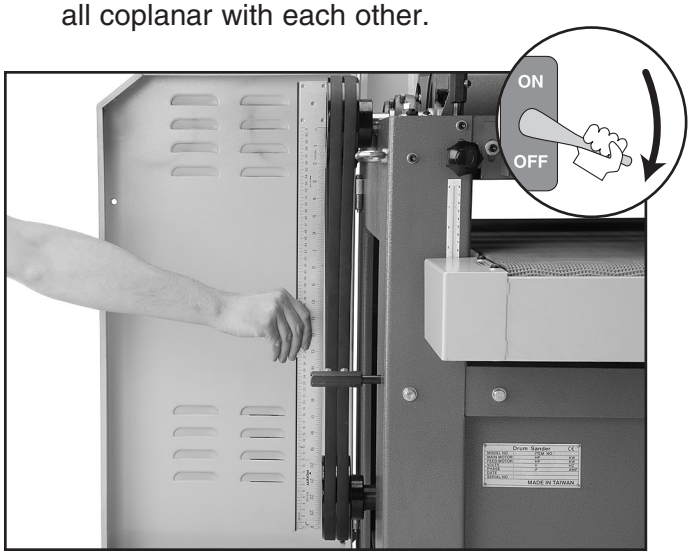



**Figure 31.** Checking pulley alignment with a straightedge.

# Conveyor Tensioning & Tracking

| Tools Needed: | Qty |
|---|---|
| Wrench 19mm | 1 |

## Tensioning

The conveyor may slightly stretch with continued use and will eventually need to be tensioned. This is most obvious if the conveyor starts slipping on the rollers.

When you tension the conveyor, focus on tensioning the adjustment bolts in even increments. Tensioning one side more than the other will cause tracking problems, which will require you to take additional steps to get the sander operating correctly.

**To tension the conveyor:**

1. Loosen the lock nut, shown in **Figure 32**, on both sides of the conveyor.

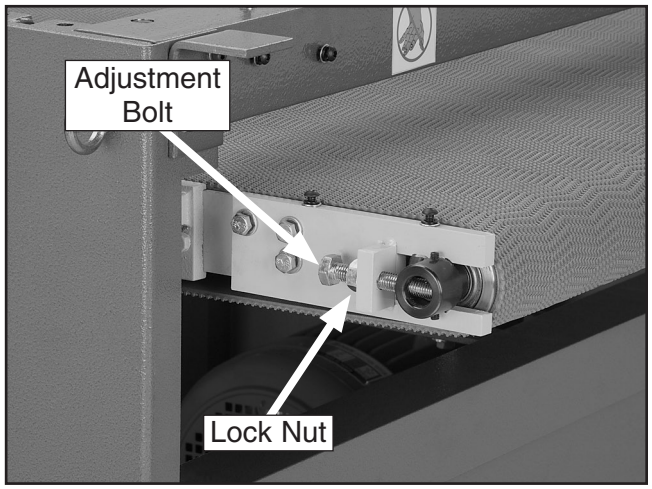



**Figure 32.** One side of conveyor tensioning & tracking controls (guard removed for clarity).

2. Use a magic marker, white out, or fingernail polish to mark the front of the conveyor tensioning bolt on both sides. This step will aid you in keeping track of the rotations as you turn the bolts, so they remain as even as possible.

3. Turn both of the conveyor adjustment bolts clockwise one full turn at a time until the conveyor belt no longer slips during operation.

   —If the conveyor starts tracking to one side, immediately turn the drum sander ***OFF*** and perform the tracking instructions.

4. Tighten the lock nuts to lock the conveyor adjustment bolts in place.

## Tracking

The conveyor must track straight. If the conveyor tracks to either side, then the tracking must be corrected or the conveyor will become damaged and have to be replaced.

Replacing a damaged conveyor is a big job. Always be careful to make sure that the belt does not travel too far to one side or the other.

Tracking the conveyor is a balancing process that takes patience and a small degree of trial-and-error. Usually you must over-tighten the loose side (the side the belt is tracking towards) to make the conveyor move to the middle of the rollers, then loosen that same side to make the conveyor stay in position. If you adjust the bolt too much either way, then you have to repeat the process until the conveyor rides in the middle and stays there during continuous operation.

**To track the conveyor:**

1. Turn the conveyor ***ON*** and watch it track.

2. Determine which side the conveyor is tracking towards (the loose side) and tension the adjustment bolt on that side until the conveyor tracks in the opposite direction.

   **Note:** *Tracking changes may take up to three minutes before they are noticeable.*

3. When the conveyor is near the middle of the rollers or table, loosen the adjustment bolt until the conveyor stops moving and tracks straight.

   —If the conveyor tracks too far to the other side, then adjust the bolt as necessary to bring it back and repeat **Steps 2 & 3** until the tracking is correct.

# Drum Adjustments

| Tools Needed: | Qty |
|---|---|
| Hex Wrench 5mm | 1 |
| Hex Wrench 4mm | 1 |
| Wrench 19mm | 1 |
| Wrench 10mm | 1 |
| Wrenches/Sockets 14mm | 2 |
| Measuring Tape | 1 |
| Gauge Blocks (see **Page 30**) | 2 |
| Feeler Gauge Set | 1 |

When adjusting the drums, they must be aligned in two ways—perpendicular to the feed direction (**Figure 33**) and parallel to the conveyor belt (**Figure 34**). In addition, the rear drum should be set approximately 0.020" (0.5 mm) below the front drum. (This amount is equal to one full crank of the handwheel.)

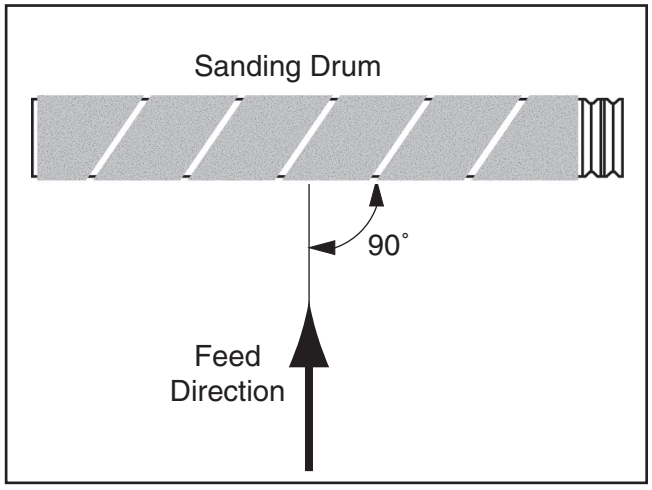



**Figure 33.** Drum perpendicular to feed direction.

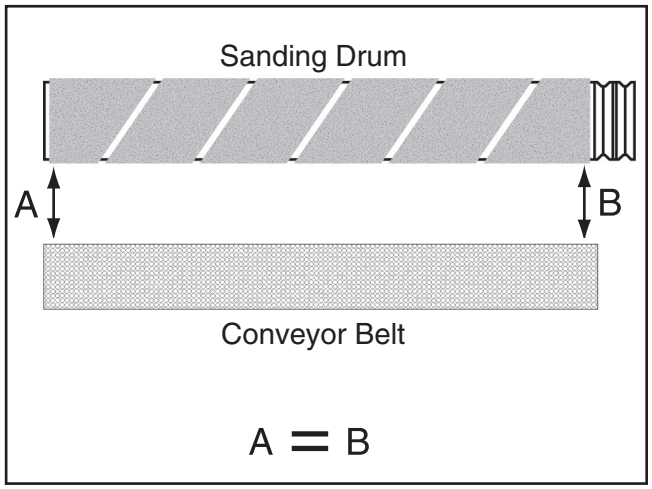



**Figure 34.** Drum parallel to conveyor belt.

The drums can be adjusted in fine increments at the pillow bearings and in larger increments by using the table lift screws (**Page 27**).

While adjusting the drums, keep in mind that having the drums parallel to the conveyor belt is critical to the sanding operation. Care should be taken to make the tolerances as close as possible (within 0.002" from one side to the other) when adjusting the drum heights.

The tolerances for having the drum perpendicular to the feed direction are much more forgiving, even allowing up to ⅛" difference from one side to the other before causing problems.

**To align the drums:**

1. **Disconnect power to the sander!**

2. Open the top and V-belt covers and remove the V-belts (see **Page 31**).

3. Remove the sandpaper from the drums.

4. Loosen the lock nuts (see **Figure 35**) on the front drum pillow bearing.

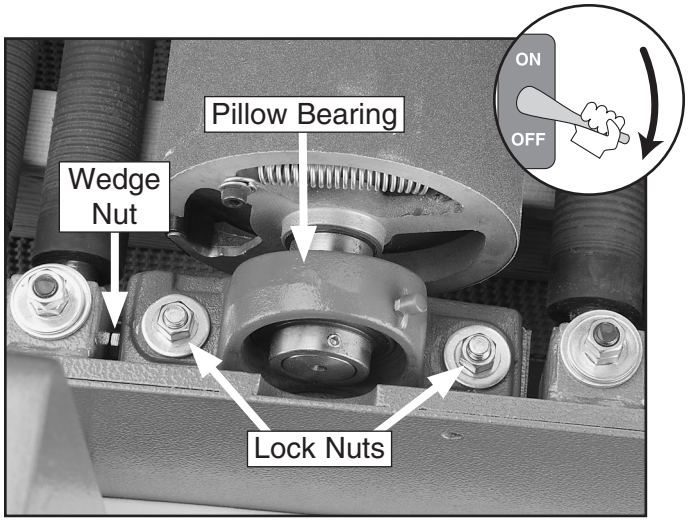



**Figure 35.** Pillow bearing adjustments.

**5.** Place the gauge blocks on the conveyor table and position them under the drum rollers, as shown in **Figure 36**.

**Figure 36.** Gauge blocks positioned under the ends of the drums.

**6.** Raise the table until the gauge blocks just touch the rear drum.

N**ote:** *A good way to know when they are touching is to rock the rear drum back and forth while raising the table until you hear or feel contact with the gauge blocks.*

**7.** Lower the table one full crank of the handwheel (taking handwheel freeplay into consideration; or in other words, wait until the chain starts moving before starting to count the handwheel rotation).

**8.** Starting at one end, find the largest size feeler gauge that can pass between the rear drum and your gauge block. (The feeler gauge should slide with moderate resistance, without forcing the drum to roll.)

**9.** Repeat **Step 9** at the other end of the drum.

—If the difference between the two sizes is less than 0.002" (or the sizes were dead even), skip to **Step 16**.

—If the difference between the two sizes is more than 0.002", then one end must be adjusted to within 0.002" from the other (with the ultimate goal of making them dead even). Continue to the next step.

**10.** Adjust the height of the drum ends by loosening the locknuts and sliding the pillow bearing up or down along the wedge.

—If you need more room behind the drum, adjust the dust scoop as described in **Dust Scoop Position** on **Page 37**.

—If you need to move the drum up or down more than can be done at the pillow bearing, then you need to adjust the table lift screw in that corner. Refer to **Table Lift Screws** on **Page 27**.

**11.** At both ends, measure the distance between the edge of the rear drum and the rear upper frame angle, as shown in **Figure 37**. The difference between these two measurements will tell you how close the drum is to being perpendicular to the feed direction.

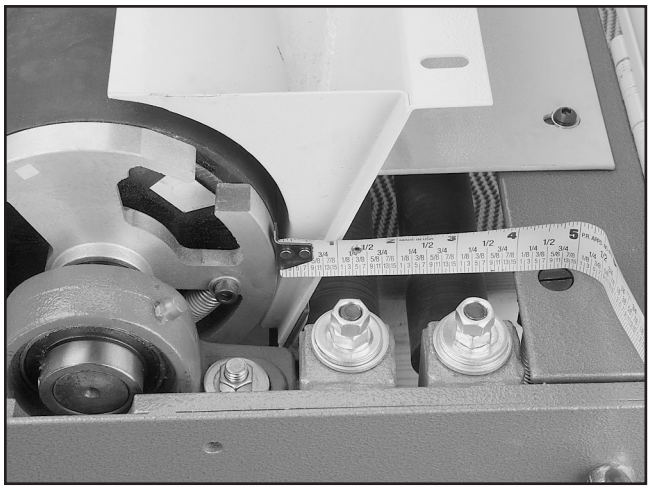


**Figure 37.** Measuring distance between edge of rear drum and the frame angle.

—If the difference between the two measurements at each end is within ⅛", skip to **Step 14**.

—If the difference between the two measurements at each end is more than ⅛", continue to the next step.

**12.** Go to the end of the drum that has the greatest distance between the rear upper frame angle, and adjust the wedge bolt counterclockwise until the distance between the upper frame angle is within ⅛" of the other end.

**13.** Tighten all the lock nuts.

**14.** Check the height of the drum ends to make sure they did not move.

—If they did not move, continue to the next step.

—If they did move, repeat **Steps 11-12**.

**15.** Raise the table up until the gauge blocks just touch the rear drum, as described in **Step 7**.

**16.** Adjust the height of the front drum ends by loosening the locknuts and sliding the pillow bearing up or down along the wedge until the largest size feeler gauge you can fit between the front drum and gauge blocks at both ends is 0.015". This will reflect the rear drum depth of cut.

**Note:** *The 0.015" setting is based off the suggested depth of cut in the **SECTION 4: OPERATIONS**; however, you can set the front drum between 0.005" and 0.025", depending on the sandpaper grit size you will use (ie, coarse grit = larger number; fine grit = smaller number).*

**17.** At both ends, measure the distance between the edge of the front drum and the front upper frame, as shown in **Figure 38**. The difference between these two measurements will tell you how close the drum is to being perpendicular to the feed direction.

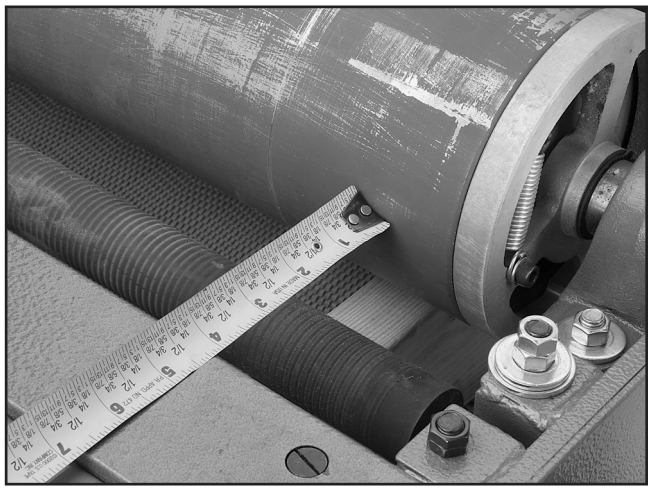


**Figure 38.** Measuring distance between edge of the front drum and the front upper frame angle.

—If the difference between the two measurements at each end are within ⅛", skip to **Step 19**.

—If the difference between the two measurements at each end is more than ⅛", continue to the next step.

**18.** Go to the end of the drum that has the greatest distance between the rear upper frame, and adjust the wedge bolt counterclockwise until the distance between the upper frame angle is within ⅛" of the other end.

**19.** Tighten all the lock nuts.

**20.** Check the height of the drum ends to make sure they did not move.

—If they did not move, you have successfully adjusted the drums. Congratulations!

—If they did move, repeat **Steps 17-18**.

**21.** Calibrate the scale pointer as described on **Page 37**.

# Pressure Roller Height

| Tools Needed: | Qty |
|---|---|
| Hex Wrench 4mm | 1 |
| Wrenches/Sockets 14mm | 2 |
| Gauge Blocks (see **Page 30**) | 2 |

**Factory Setting:**
Distance Below Rear Drum ..... 0.160" (4mm)

The pressure rollers are factory set at 0.160" (4mm) below the bottom of the rear sanding drum and are fully adjustable either up/down with the two nuts shown in **Figure 39**. After the adjustment has been made, always lock the top hex nut against the bottom to prevent it from moving.

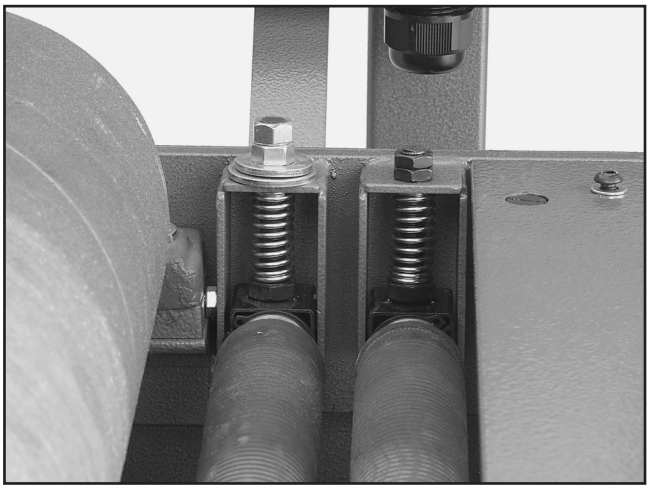


**Figure 39.** Pressure roller adjustment hex nuts.

Proper pressure on the workpiece helps avoid kickback and keeps the workpiece from slipping. However, as pressure increases on the workpiece, snipe also increases (snipe is normal with all brands of drum sanders).

If snipe becomes a problem, you can minimize it by reducing pressure (raising pressure roller height). However, you can only minimize it so much before the workpiece will slip or kick out, causing a hazard to the operator. If this happens, you have raised the pressure rollers too high for them to function as intended—the pressure rollers MUST be lowered to prevent injury.

**Note:** *An additional trick for eliminating snipe is to reduce pressure on the rear rollers, but not the front rollers. Conditions will vary with wood types, so use trial-and-error to find the best results for your application.*

These instructions will restore the pressure rollers to the factory setting.

**To adjust the pressure rollers to the factory setting:**

1. **Disconnect power to the sander!**

2. Open the top cover.

3. Place the gauge blocks on the conveyor table and position them under all the pressure rollers, as shown in **Figure 40**.

**Figure 40.** Gauge blocks in position for adjusting the pressure roller height.

4. Adjust the conveyor table up so the gauge blocks just touch the rear drum roller.

5. Rotate the handwheel eight full turns, counting from the point of actual table movement so handwheel freeplay does not affect your count.

6. With all the rollers: 1) Raise one end off the gauge block and move it back down until it just touches the gauge block; 2) repeat with the other side; 3) tighten the hex nuts together to make sure the adjustments are locked in place.

# Scale Pointer Calibration

**Tools Needed:** **Qty**
Phillips Head Screwdriver ..... 1

In order for the scale pointer to be accurate, it must be calibrated.

We recommend calibrating your scale pointer any time you adjust the drum heights or table lift screws.

**To calibrate the scale pointer:**

1. Sand a workpiece with the drum sander and measure the thickness of the sanded workpiece.

2. Loosen the screw that secures the scale pointer and adjust it to the thickness of the workpiece.

# Dust Scoop Position

**Tools Needed:** **Qty**
Hex Wrench 4mm..... 1

**Setting:**
Distance From Roller..... 0.160" (4mm)

The dust scoop helps control the effectiveness of the dust collection system, thus reducing the amount of dust that accumulates on the workpiece as it travels through the sander.

**To adjust the dust scoop position:**

1. **Disconnect power to the sander!**

2. Open the top cover.

3. Loosen the four button head cap screws, shown in **Figure 41**, that secure the dust scoop to the rear upper angle.

4. At both ends, adjust the dust scoop forward/backward until there is a 4mm gap between the rear drum and the dust scoop at the narrowest point (use the 4mm hex wrench as a gauge; **Figure 41**), and tighten the four button head cap screws.

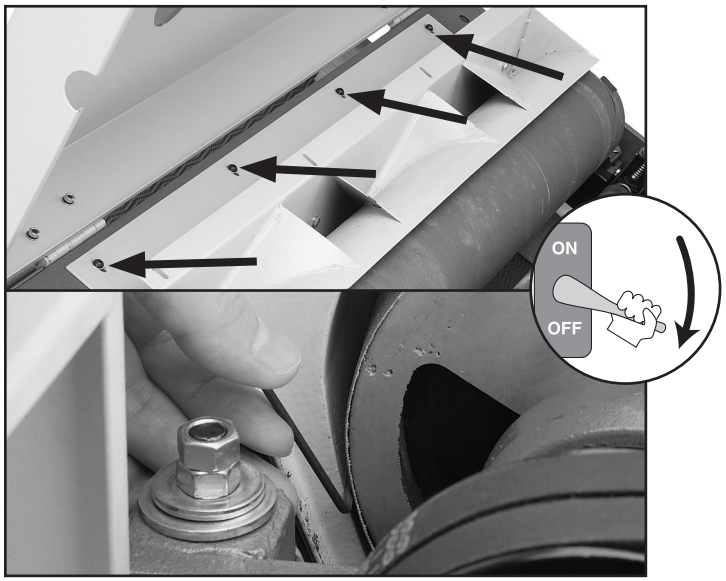



**Figure 41.** Adjusting the dust scoop.

# Table Lift Screws

| Tools Needed: | Qty |
|---|---|
| Hex Wrench 8mm | 1 |
| Wrench/Socket 14mm | 1 |
| Flat Head Screwdriver | 1 |
| Chalk, white-out, or paint | 1 |

The table lift screws are connected by a chain and driven by the table elevation handwheel. When the chain is removed from a sprocket on one of the lift screws, that lift screw can adjust that portion of the table up/down independently to assist in setting the table parallel to the drums.

Adjusting the table lift screws will only be necessary if you need to adjust the drum heights more than allowed at the pillow bearing adjustments, or if you have removed the table or chain during a service procedure and you need to reset the drums parallel to the table.

Each tooth on the sprocket represents 0.006" or .16mm of table elevation movement. For example, if the rear of the table was 0.006" low, rotate both rear table lift screws to the next sprocket tooth in the same chain position. You can easily rotate the sprockets from the top of the table lift screws with a flat head screwdriver.

**To adjust the table lift screws:**

1. **Disconnect power to the sander!**

2. Open the side cover.

3. Raise the table up to at least the 1" mark on the height scale.

4. At the lift screw that needs to be adjusted, mark the end of a sprocket tooth and the chain hole where that tooth is meshed, as shown in **Figure 42**.

## *NOTICE*

**Marking the chain and sprocket locations will save you a substantial amount of time when you reinstall the chain. Make sure you have done this before removing the chain.**

**Figure 42.** Marking sprocket tooth and chain.

5. Loosen the chain with the adjustable idler roller sprocket shown in **Figure 43**.

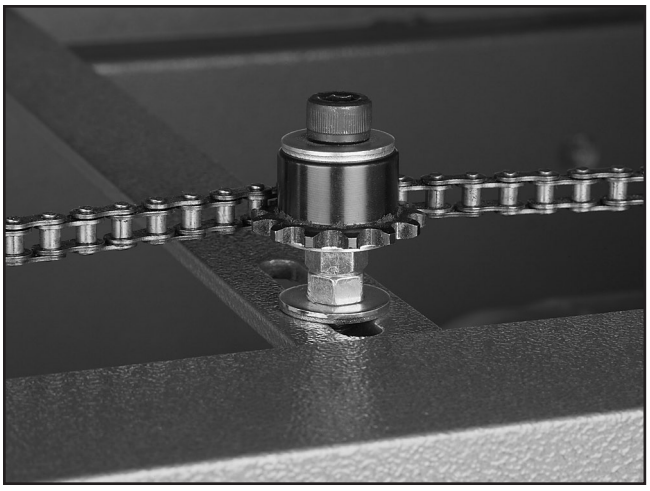


**Figure 43.** Adjustable idler roller sprocket.

6. Carefully move the chain off of only the marked sprocket.

7. Keep track of the marked chain hole and rotate the sprocket the necessary number of teeth away from the marked one to meet the difference in height needed.

8. Fit the chain back over the sprocket, making sure the new sprocket tooth is inserted into the marked chain hole.

9. Re-tension the chain and check the new height setting.

10. Repeat **Steps 5–9** as needed until the table height is parallel to the drums in all four corners, and calibrate the scale pointer.

# Conveyor Belt Replacement

| Tools Needed: | Qty |
|---|---|
| Hex Wrench 8mm | 1 |
| Hex Wrench 5mm | 1 |
| Hex Wrench 4mm | 1 |
| Hex Wrench 3mm | 1 |
| Wrench/Socket 19mm | 1 |
| Wrenches/Sockets 14mm | 2 |
| Wrench 13mm | 1 |
| Wrench/Socket 12mm | 1 |
| Wrench 10mm | 1 |
| Phillips Head Screwdriver | 1 |
| Measuring Tape | 1 |
| Gauge Blocks (see **Page 30**) | 2 |
| Feeler Gauge Set | 1 |
| 3 Assistants for Lifting Help | 1 |
| Flashlight or Work Light | 1 |

Replacing the conveyor belt is a big job and requires moderate mechanical skill and a fair amount of patience. For planning purposes, expect to have your machine out of operation for at least a few hours.

As you remove hardware to complete these instructions, we recommend putting all the bolts, screws, washers, etc. back into the holes from which they came. This simple habit will take slightly longer when disassembling the machine, but it will save you a lot of time and reduce frustration during reassembly.

**To replace the conveyor belt:**

1. **Disconnect power to the sander!**

2. Remove the top cover (6 button head screws) and pulley cover (4 hex bolts).

3. Remove the rear dust scoop (4 button head screws).

4. Remove the V-belts (see **Page 31** for help). The drum sander should now look similar to **Figure 44**.

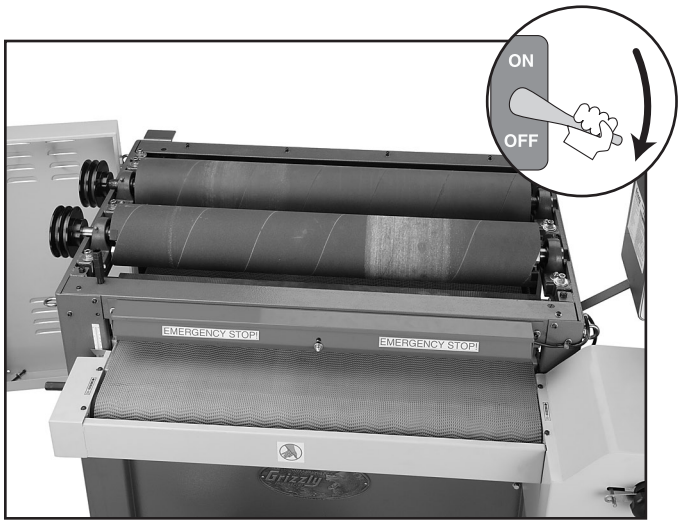



**Figure 44.** Drum sander disassembled to **Step 4**.

5. Remove the sanding drums (4 hex nuts and 4 flat washers on each one).

6. Place the gauge blocks face down, as shown in **Figure 45**, raise the table to relieve the spring pressure on the pressure rollers, remove the pressure roller nuts, and lower the table to remove the pressure rollers.

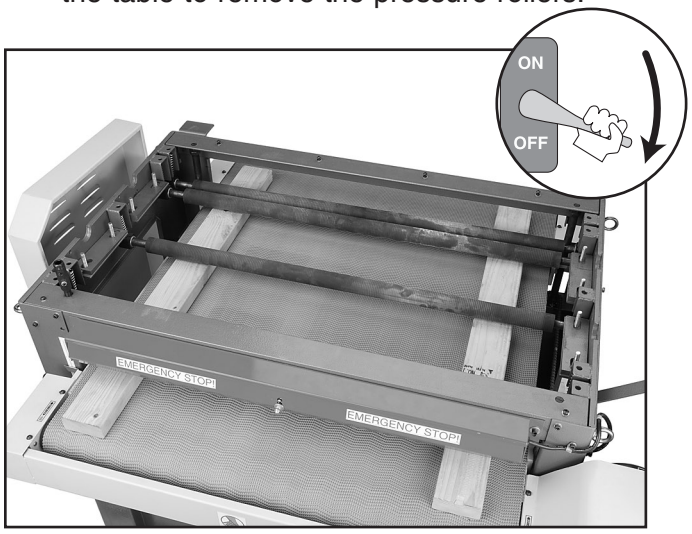



**Figure 45.** Gauge blocks set under pressure rollers to relieve spring tension with the table.

7. Remove the front and rear upper frame angles (4 cap screws, 4 lock washers, and 4 flat washers on each one).

8. Remove the table elevation lock knob.

9. Remove the feed motor cover (4 button head screws and setscrew on knob).

10. Remove the front conveyor guard (4 button head screws) and the cord clamp, and set the front conveyor guard off to the side of the machine.

11. Remove the rear conveyor end guards (4 button head screws). The drum sander should now look similar to **Figure 46**.

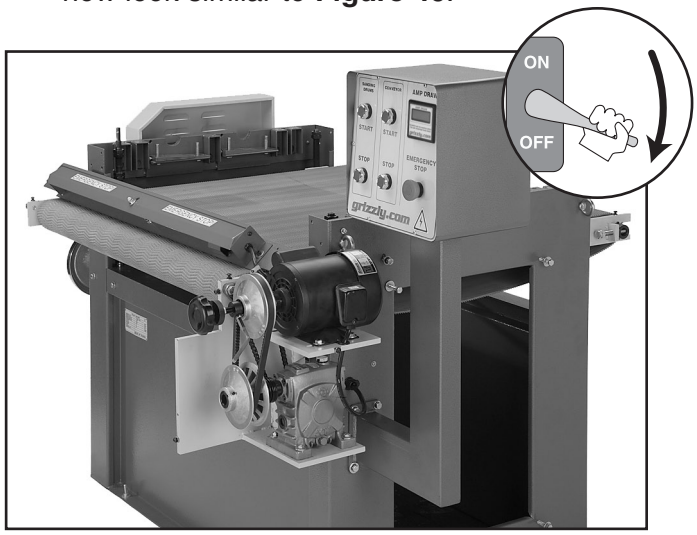



**Figure 46.** Drum sander disassembled to **Step 11**.

12. Raise the table up to the 1" mark on the scale.

13. Mark the chain and sprockets.

14. Loosen the chain idler adjustment sprocket, carefully pull the chain off of all the sprockets, and remove it from the cabinet by undoing the chain master link, as shown in **Figure 47**.

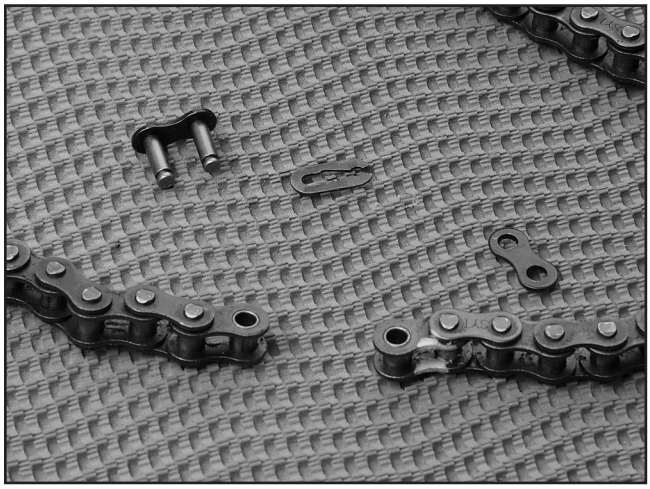


**Figure 47.** Chain removed from table by removing the master link.

15. Loosen the conveyor belt from the rear adjustments, as shown in **Figure 48.**

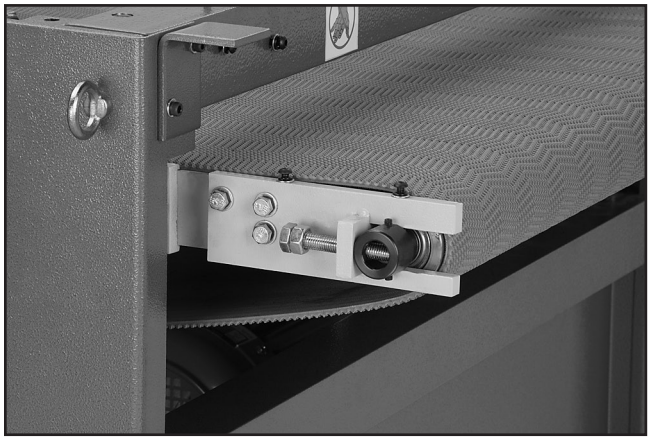


**Figure 48.** Conveyor belt loosened at the rear adjustment.

**16.** Remove the control panel and set it to the side without disconnecting any wiring.

**17.** Loosen the strain relief on the conveyor motor cord, and disconnect wiring inside the conveyor motor junction box.

**18.** Remove the conveyor feed motor. The sander should now be disassembled as shown in **Figure 49**.

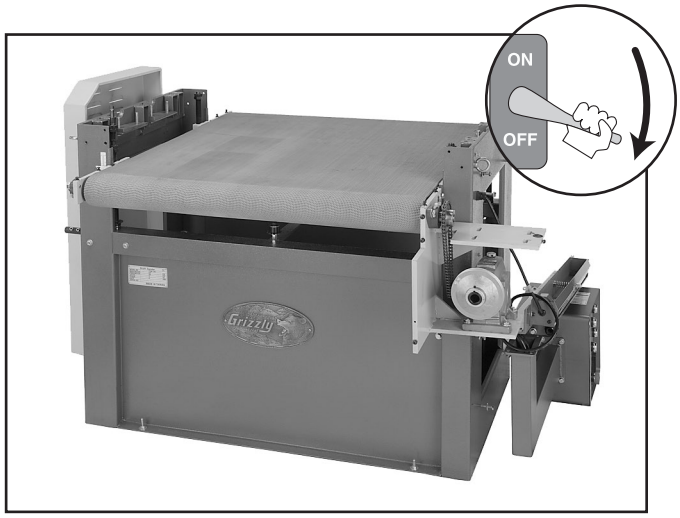



**Figure 49.** Drum sander disassembled to **Step 17**.

**19.** Using four strong people (or a forklift w/ straps), carefully lift the table off of the drum sander cabinet, as shown in **Figure 50**.

**Note:** *When removing the table, be careful with the ball thrust bearings located under the table elevation shafts (part #78 in the breakdown drawing), as they can be easily knocked onto the ground.*

**Figure 50.** Lifting the table off of the drum sander cabinet with four people.

**20.** Remove the brackets from the left side of the table and remove the belt (see **Figure 51**).

***Note:*** *Leave the front pillow bearing connected to the bracket, but disconnect that bracket from the table.*

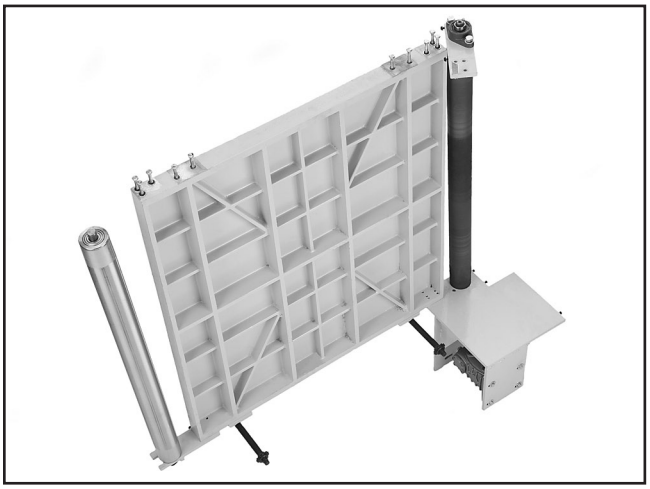


**Figure 51.** Conveyor belt removed from table.

**21.** Install the new belt and reassemble the drum sander by reversing the disassembly steps.

**22.** After reassembly, adjust the drums and pressure rollers to their proper settings. See **Drum Adjustments** on **Page 33** and **Pressure Roller Height** on **Page 36**.

# G0449 Electrical Components

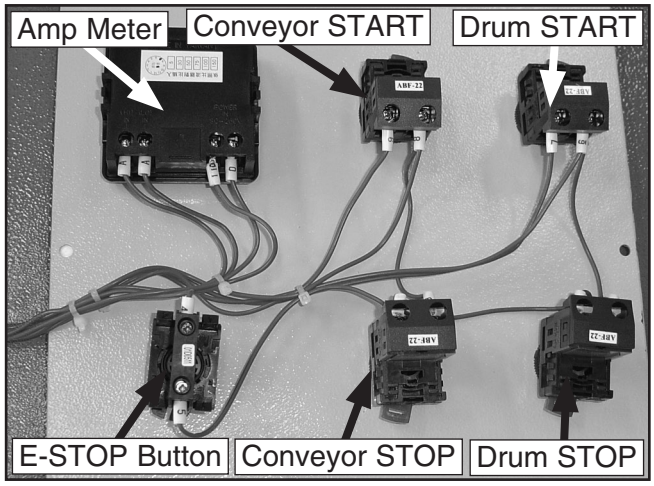



**Figure 52.** G0449 back side of front panel.

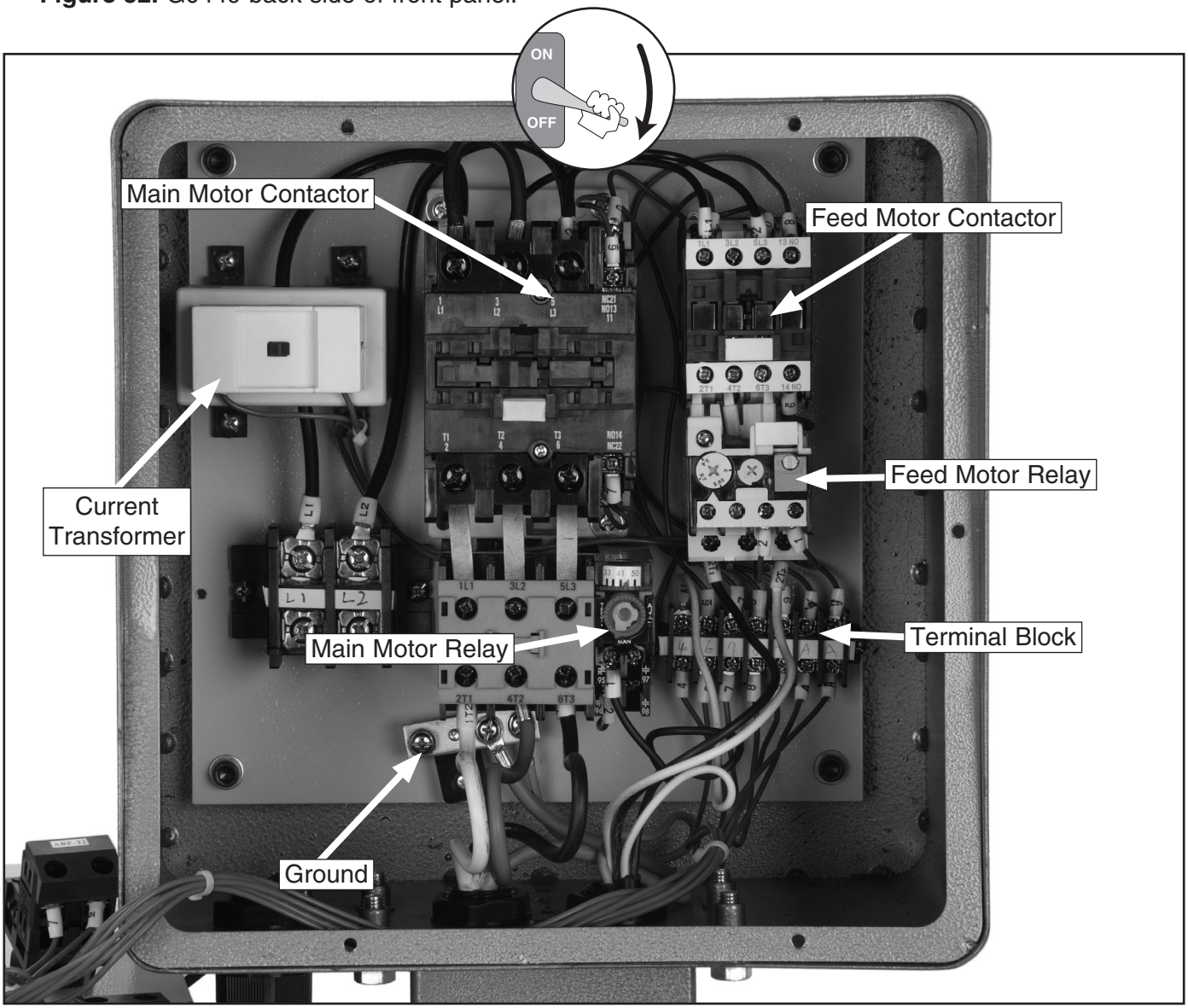
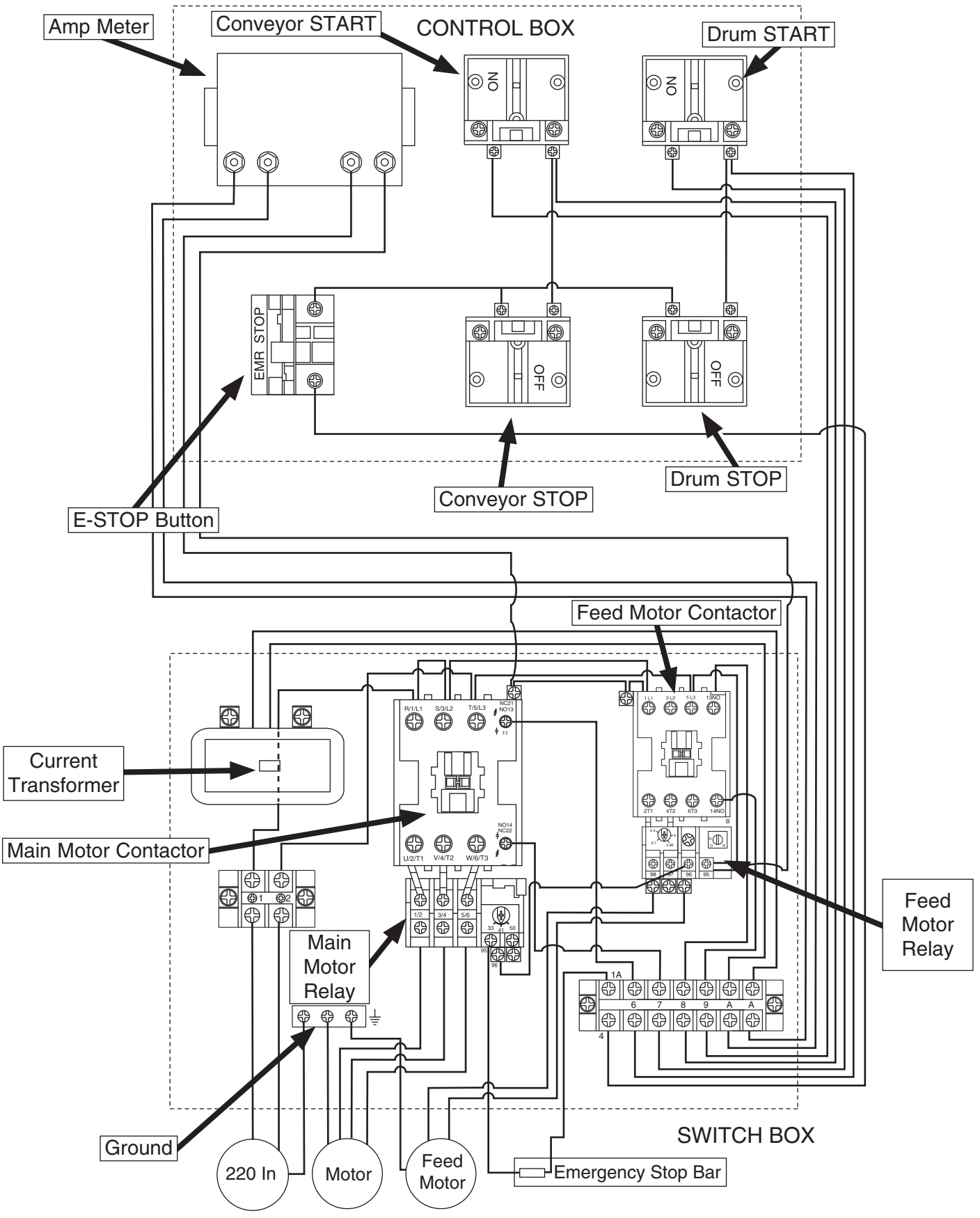



**Figure 53.** Model G0449 Electrical panel.

# G0449 Wiring Diagram



# G0450 220V 3 Phase Electrical Components

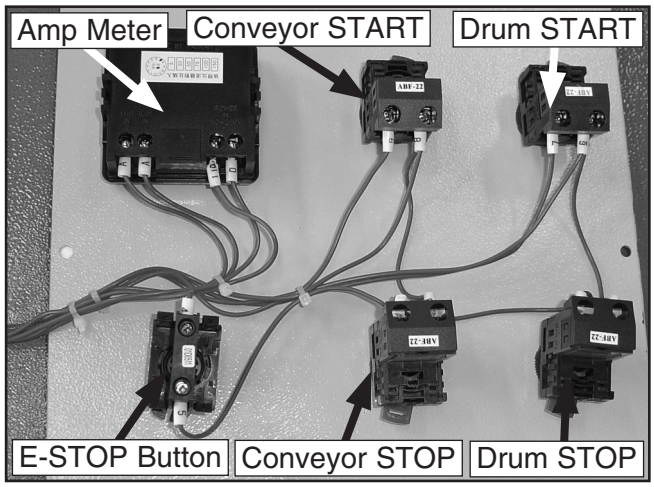



**Figure 54.** G0450 back side of front panel.

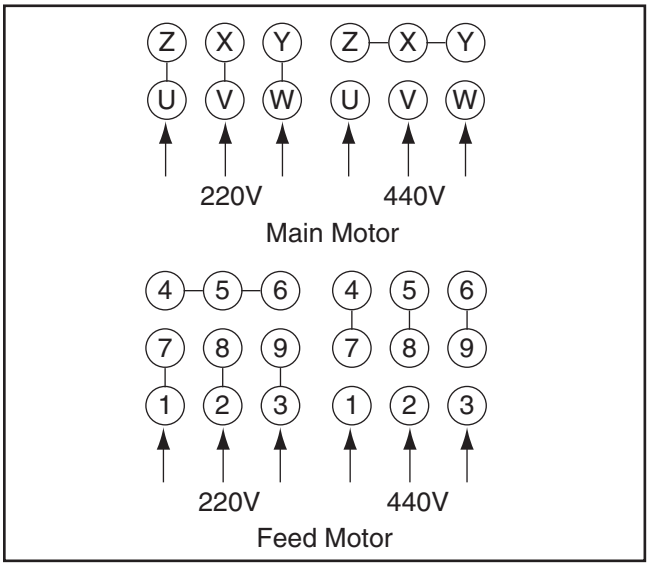
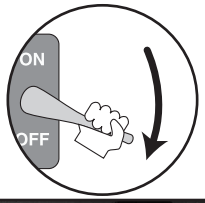



**Figure 55.** G0450 junction wiring.




**Note:** *Always use the wiring diagrams on the inside of the junction box as they reflect machine changes since the time of writing.*

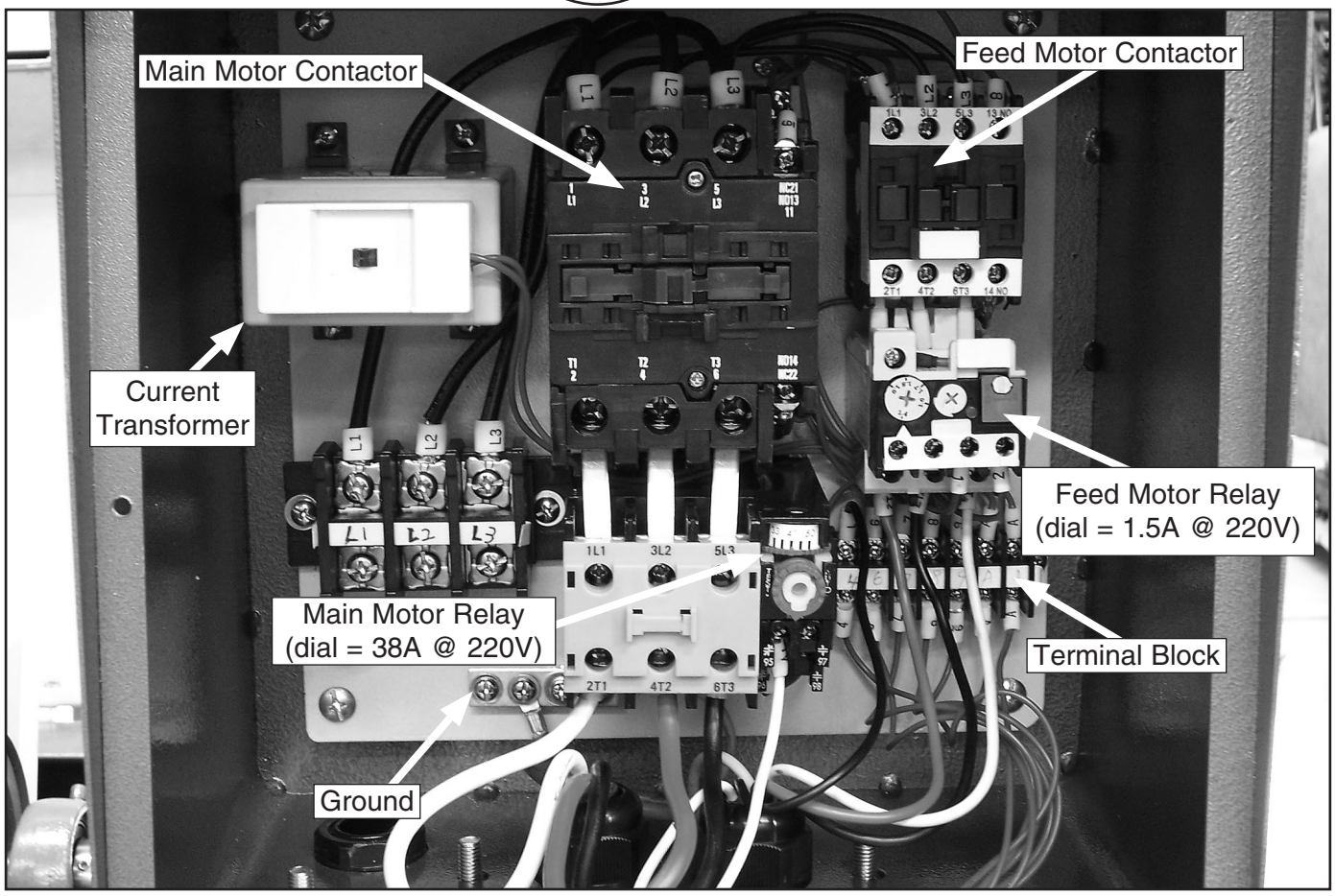
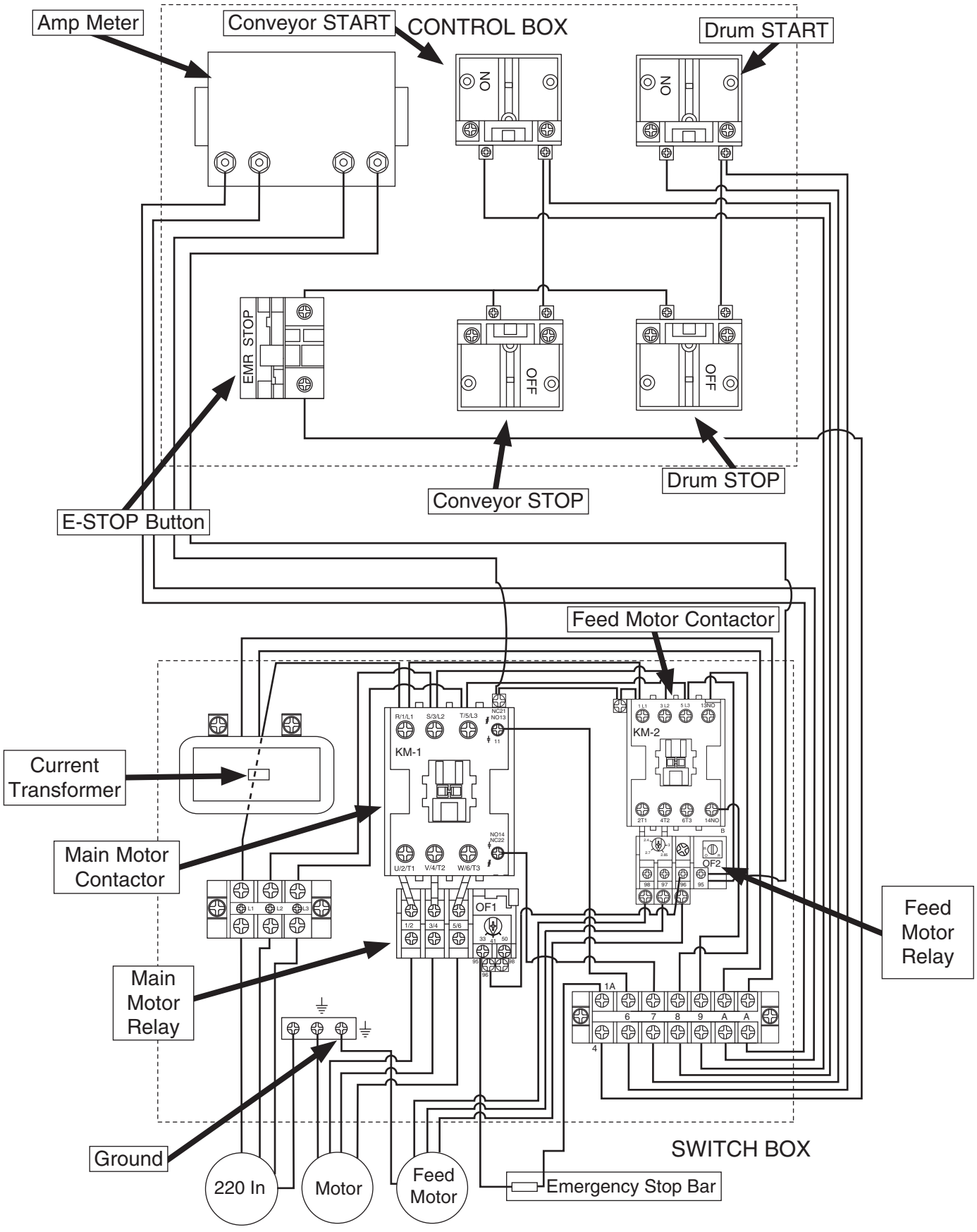



**Figure 56.** Model G0450 220V 3 Phase Electrical panel.

# G0450 220V 3 Phase Wiring Diagram



# G0450 440V 3 Phase Electrical Components

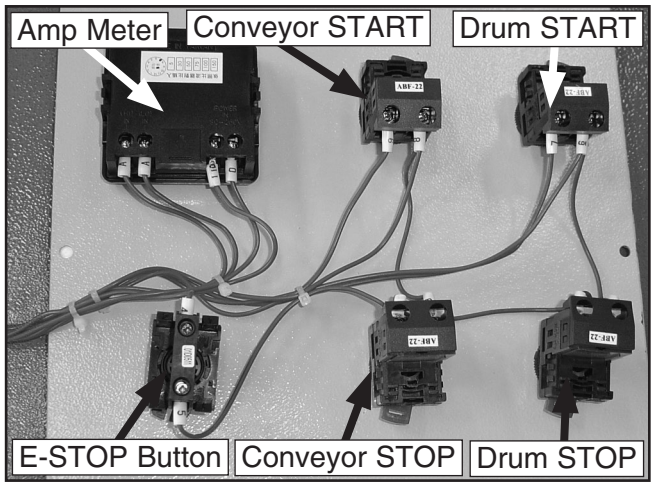



**Figure 57.** G0450 440V back side of front panel.

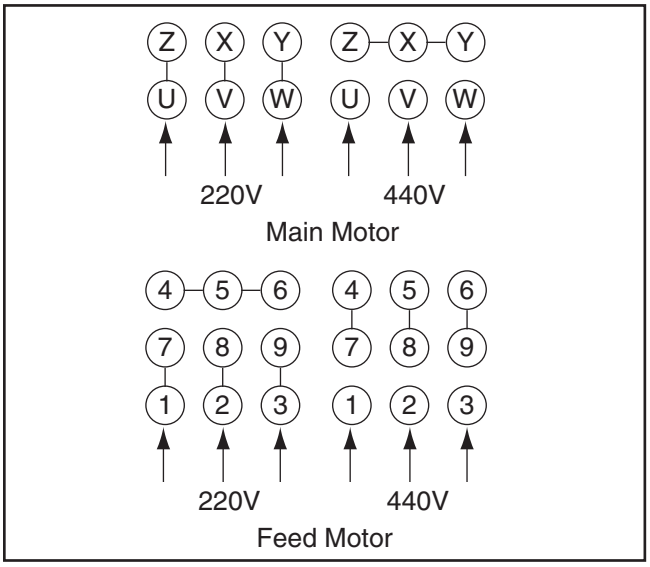
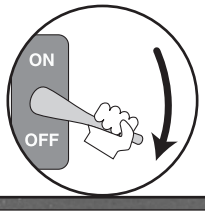



**Figure 58.** G0450 440V junction wiring.




**Note:** *Always use the wiring diagrams on the inside of the junction box as they reflect machine changes since the time of writing.*

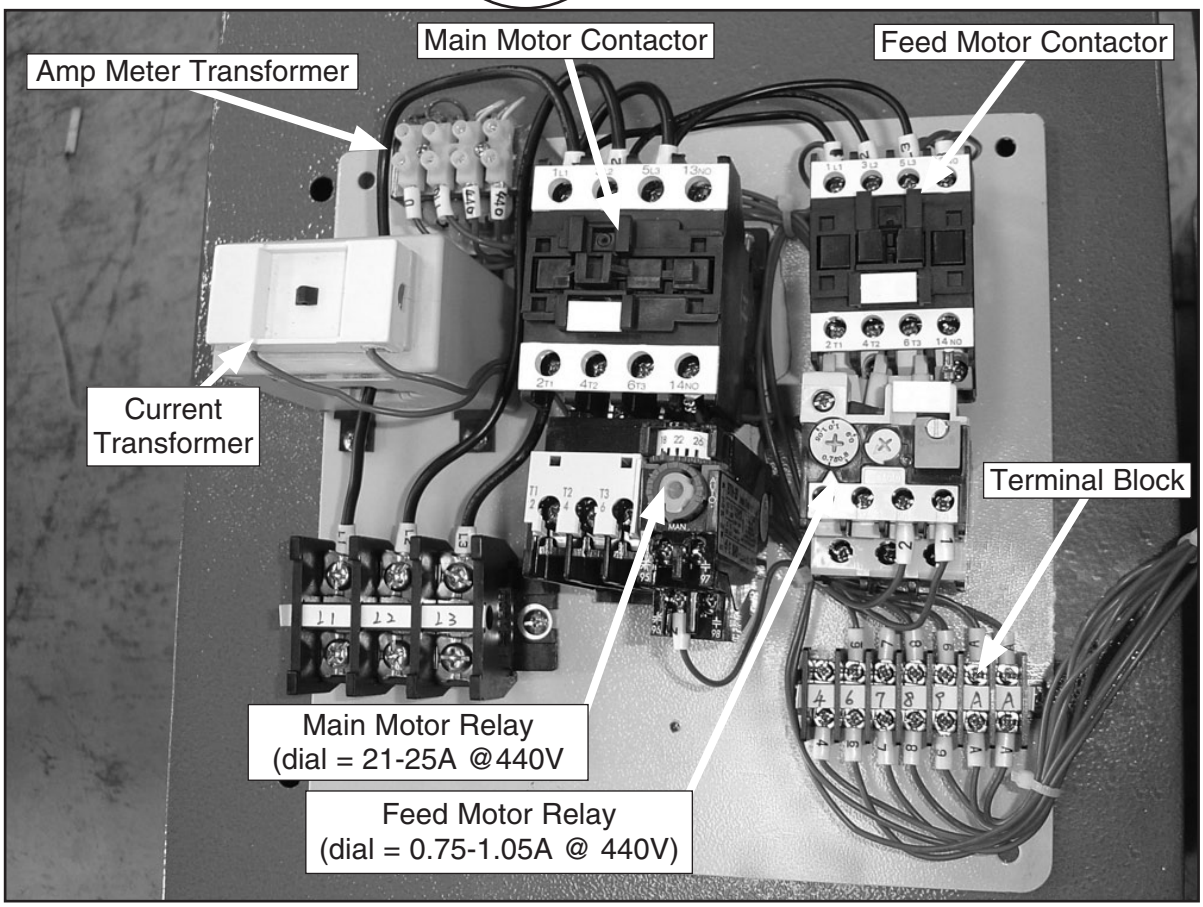
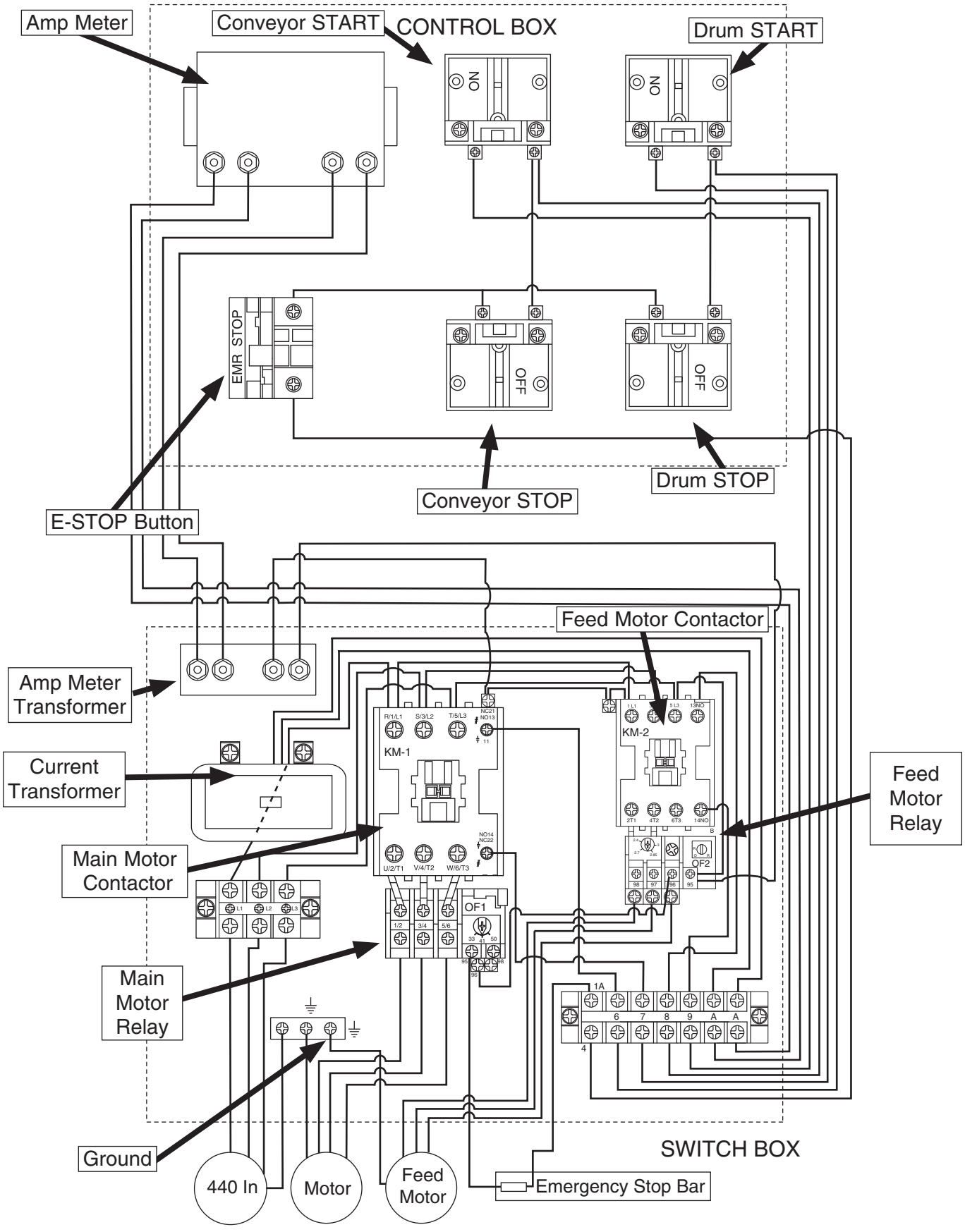
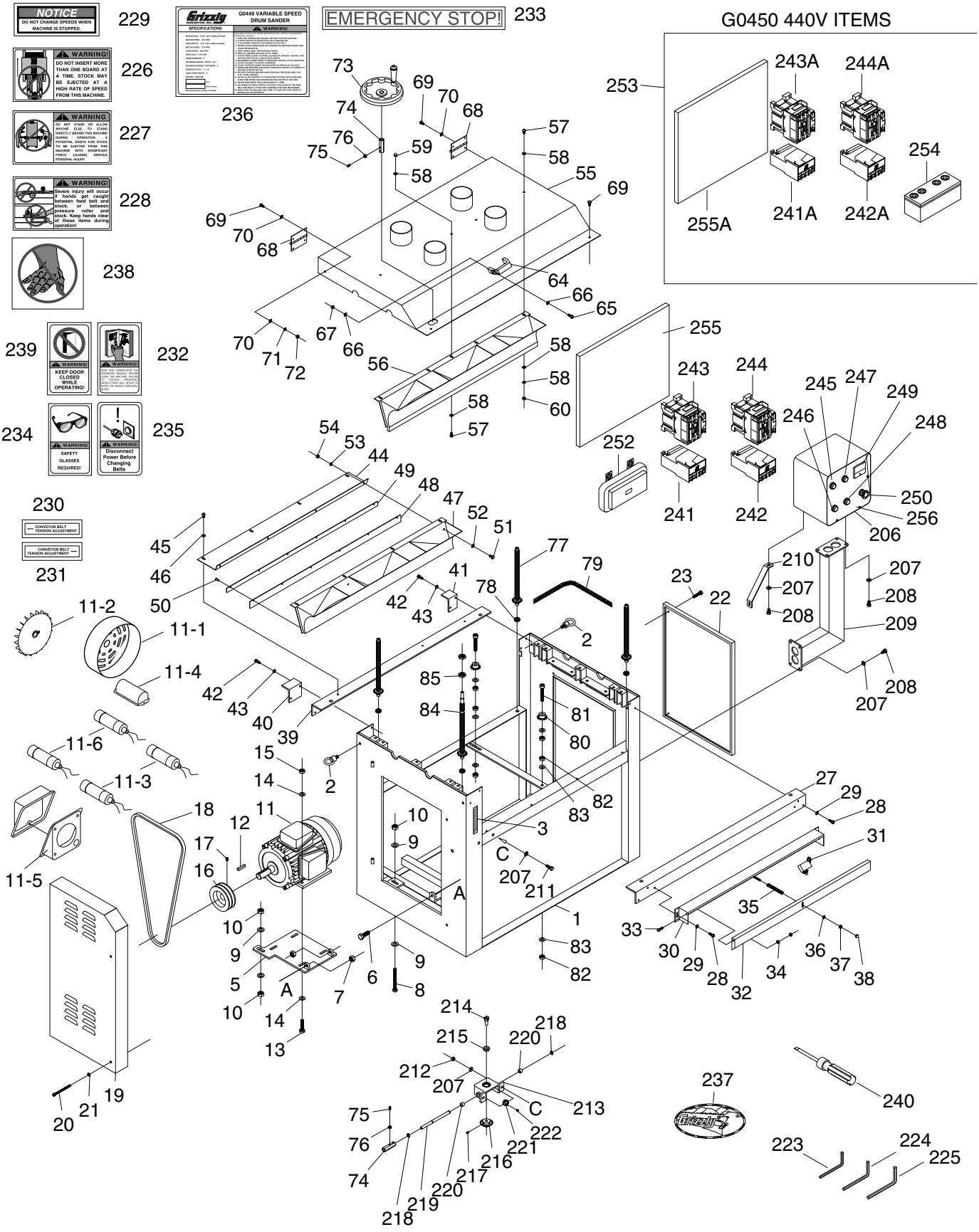

Amp Meter Transformer
Main Motor Contactor
Feed Motor Contactor
Current Transformer
Terminal Block
Main Motor Relay (dial = 21-25A @440V
Feed Motor Relay (dial = 0.75-1.05A @ 440V)

**Figure 59.** Model G0450 440V 3 Phase Electrical panel.

# G0450 440V 3 Phase Wiring Diagram



# Frame Parts Breakdown

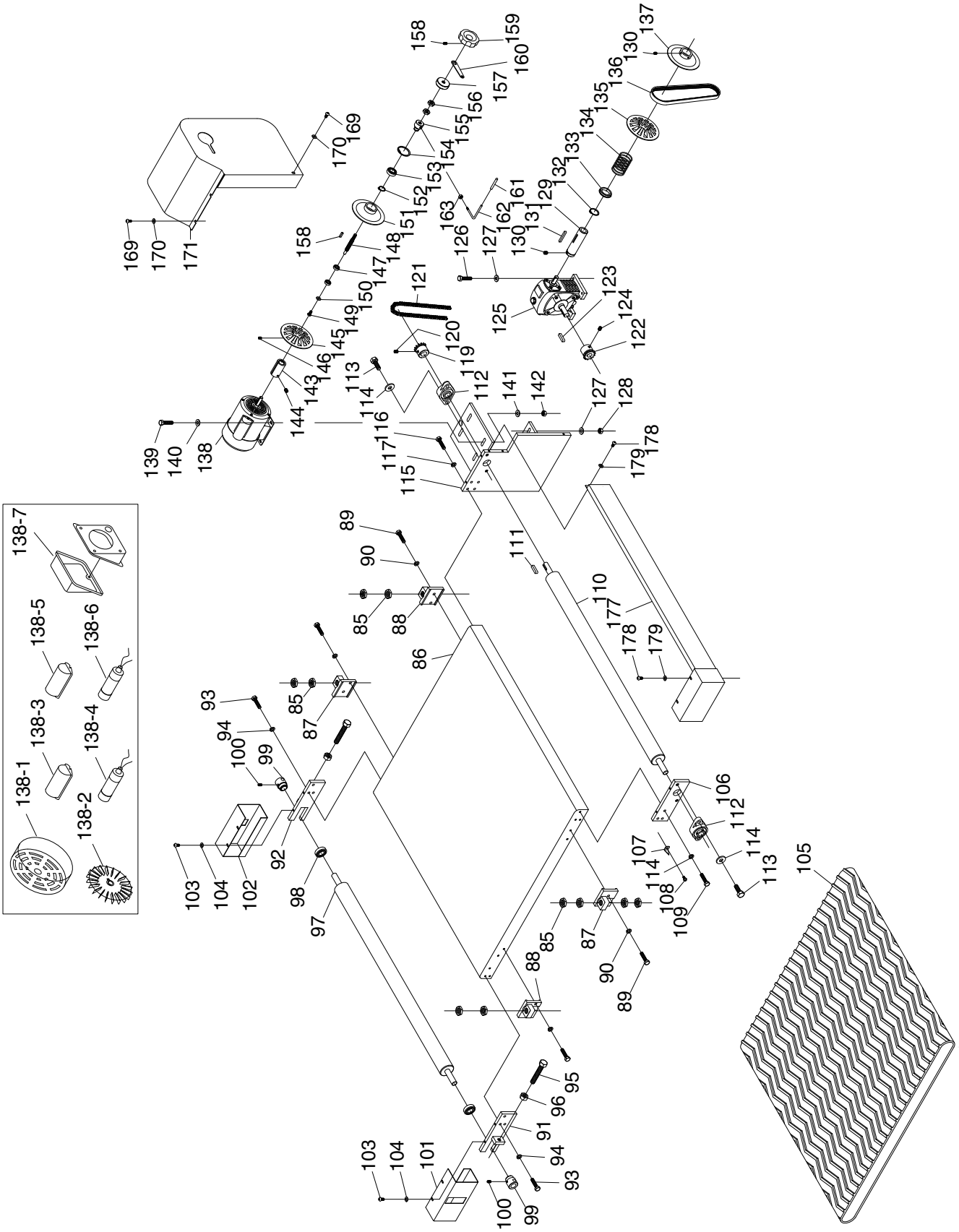


# Frame Parts List

| REF | PART # | DESCRIPTION |
|---|---|---|
| 1 | P0449001 | MAIN FRAME |
| 2 | P0449002 | LIFT RING |
| 3 | P0449003 | SCALE |
| 5 | P0449005 | MOTOR BASE |
| 6 | PB75M | HEX BOLT M12-1.75 X 35 |
| 7 | PN09M | HEX NUT M12-1.75 |
| 8 | PB143M | HEX BOLT M12-1.75 X 120 |
| 9 | PW01 | FLAT WASHER 1/2 |
| 10 | PN09M | HEX NUT M12-1.75 |
| 11 | P0449011 | MOTOR 10HP (G0449) |
| 11 | P0450011 | MOTOR 15HP (G0450) |
| 11-1 | P0449011-1 | MOTOR COVER (G0449) |
| 11-1 | P0450011-1 | MOTOR COVER (G0450) |
| 11-2 | P0449011-2 | MOTOR FAN (G0449) |
| 11-2 | P0450011-2 | MOTOR FAN (G0450) |
| 11-3 | P0449011-3 | CAPACITOR 50MFD 350VAC |
| 11-4 | P0449011-4 | CAPACITOR COVER |
| 11-5 | P0449011-5 | WIRING BOX (G0449) |
| 11-5 | P0450011-5 | WIRING BOX (G0450) |
| 11-6 | P0449011-6 | CAPACITOR 300MFD 250VAC |
| 12 | PK109M | KEY 7 X 7 X 35 |
| 13 | PB116M | HEX BOLT M10-1.5 X 45 |
| 14 | PW02 | FLAT WASHER 3/8 |
| 15 | PN02M | HEX NUT M10-1.5 |
| 16 | P0449016 | MAIN MOTOR PULLEY |
| 17 | PSS16M | SET SCREW M8-1.25 X 10 |
| 18 | PVB69 | V-BELTS B69 |
| 19 | P0449019 | BELT COVER |
| 20 | P0449020 | CAP SCREW M6-1 X 90 |
| 21 | PW06 | FLAT WASHER 1/4 |
| 22 | P0449022 | SIDE PANEL |
| 23 | PB20M | HEX BOLT M8-1.25 X 35 |
| 27 | P0449027 | FRONT UPPER FRAME ANGLE |
| 28 | PB02M | HEX BOLT M6-1 X 12 |
| 29 | PW06 | FLAT WASHER 1/4 |
| 30 | P0449030 | MOUNTING BRACKET |
| 31 | P0449031 | EMERGENCY STOP SWITCH |
| 32 | P0449032 | SHUT-OFF BAR |
| 33 | PSB115M | BUTTON HD CAP SCR M6-1 X 16 |
| 34 | PW06 | FLAT WASHER 1/4 |
| 35 | P0449035 | COMPRESSION SPRING |
| 36 | PW06 | FLAT WASHER 1/4 |
| 37 | PN01M | HEX NUT M6-1 |
| 38 | PN01M | HEX NUT M6-1 |
| 39 | P0449039 | REAR UPPER FRAME ANGLE |
| 40 | P0449040 | SUPPORT PLATE, LEFT |
| 41 | P0449041 | SUPPORT PLATE, RIGHT |
| 42 | PSB01M | CAP SCREW M6-1 X 16 |
| 43 | PW06 | FLAT WASHER 1/4 |
| 45 | PSBS09M | BUTTON HD CAP SCR M6-1 X 12 |

| REF | PART # | DESCRIPTION |
|---|---|---|
| 46 | PW06 | FLAT WASHER 1/4 |
| 47 | P0449047 | DUST SCOOP |
| 48 | P0449048 | RUBBER PLATE |
| 49 | P0449049 | PLATE |
| 50 | P0449050 | RIVET |
| 51 | PB83M | HEX BOLT M6-1 X 16 |
| 52 | PW06 | FLAT WASHER 1/4 |
| 53 | PW06 | FLAT WASHER 1/4 |
| 54 | PN01M | HEX NUT M6-1 |
| 55A | P0449055A | TOP COVER |
| 57 | PSBS11M | BUTTON HD CAP SCR M6-1 X 10 |
| 58 | PLW03M | LOCK WASHER 6MM |
| 59 | PN01M | HEX NUT M6-1 |
| 60 | PN01M | HEX NUT M6-1 |
| 64 | P0449064 | HANDLE |
| 65 | PSB01M | CAP SCREW M6-1 X 16 |
| 66 | PW06 | FLAT WASHER 1/4 |
| 67 | PN01M | HEX NUT M6-1 |
| 68 | P0449068 | HINGE |
| 69 | PSB26M | CAP SCREW M6-1 X 12 |
| 70 | PW06 | FLAT WASHER 1/4 |
| 71 | PW06 | FLAT WASHER 1/4 |
| 72 | PN01M | HEX NUT M6-1 |
| 73 | P0449073 | HAND WHEEL |
| 74 | P0449074 | HAND WHEEL SLEEVE |
| 75 | PSS01M | SET SCREW M6-1 X 10 |
| 76 | PN01M | HEX NUT M6-1 |
| 77 | P0449077 | LIFT SCREW |
| 78 | P51103 | THRUST BEARING 51103 |
| 79 | P0449079 | CHAIN 3/8 PITCH |
| 80 | P0449080 | SPROCKET |
| 81 | PSB71M | CAP SCREW M10-1.5 X 60 |
| 82 | PN02M | HEX NUT M10-1.5 |
| 83 | PW02 | FLAT WASHER 3/8 |
| 84 | P0449084 | DRIVING LIFT SCREW |
| 85 | PN28M | HEX NUT M20-2.5 |
| 86 | P0449086 | TABLE |
| 87 | P0449087 | TABLE SUPPORT |
| 88 | P0449088 | TABLE SUPPORT |
| 89 | PB20M | HEX BOLT M8-1.25 X 35 |
| 90 | PW02 | FLAT WASHER 3/8 |
| 91 | P0449091 | ROLLER SUPPORT BRACKET |
| 92 | P0449092 | ROLLER SUPPORT BRACKET |
| 93 | PB20M | HEX BOLT M8-1.25 X 35 |
| 94 | PLW01 | LOCK WASHER 5/16 |
| 95 | PB141M | HEX BOLT M12-1.75 X 80 |
| 96 | PN09M | HEX NUT M12-1.75 |
| 97 | P0449097 | PRESSURE ROLLER |
| 98 | P6204 | BEARING 6204ZZ |
| 99 | P0449099 | BRACKET |

# Conveyor Parts Breakdown

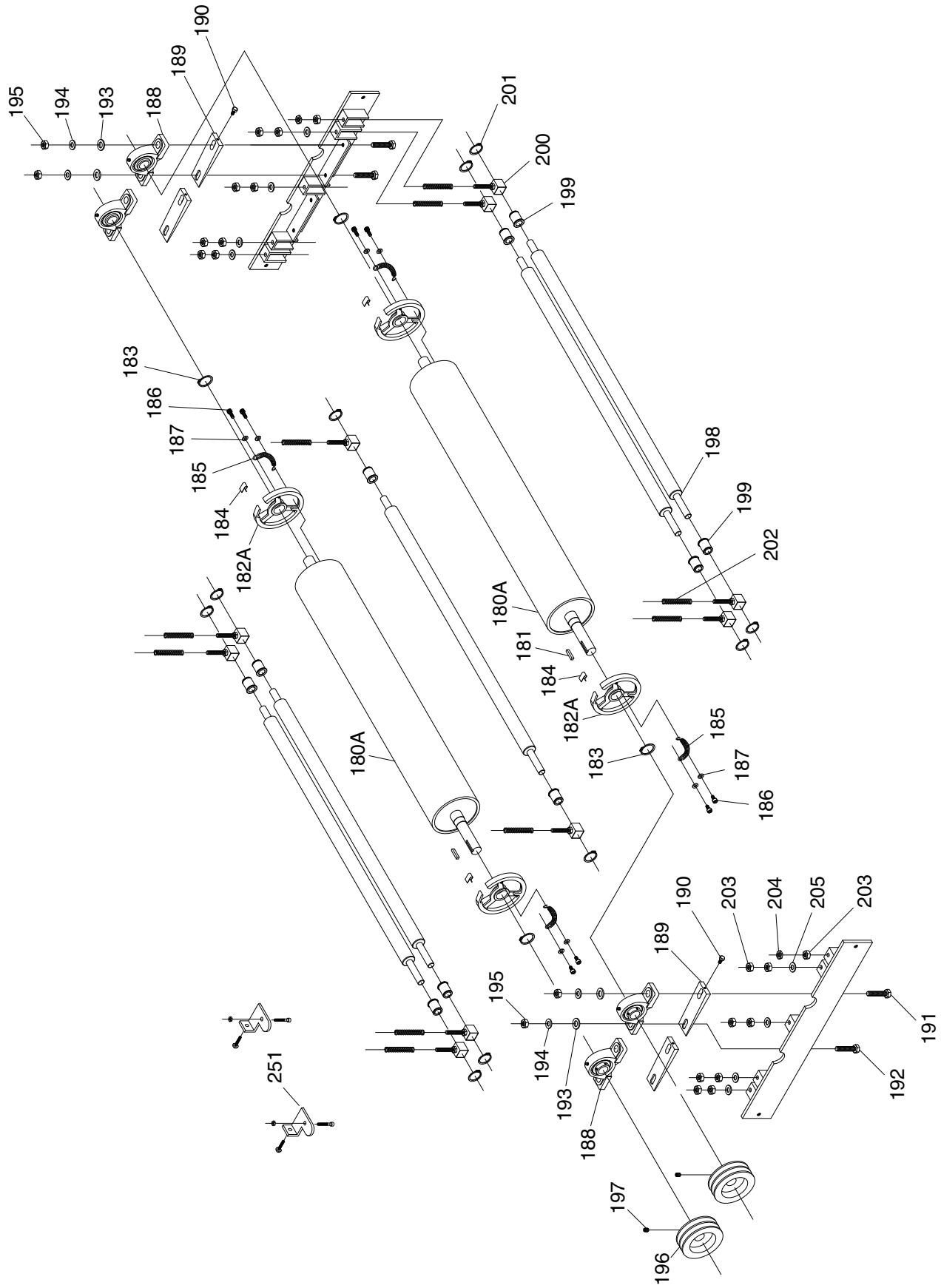


# Conveyor Parts List

| REF | PART # | DESCRIPTION |
|---|---|---|
| 100 | PSS01M | SET SCREW M6-1 X 10 |
| 101 | P0449101 | ROLLER COVER |
| 102 | P0449102 | ROLLER COVER |
| 103 | PSBS09M | BUTTON HD CAP SCR M6-1 X 12 |
| 104 | PW06 | FLAT WASHER 1/4 |
| 105 | P0449105 | CONVEYOR BELT |
| 106 | P0449106 | ROLLER SUPPORT BRACKET |
| 107 | P0449107 | POINTER |
| 108 | PS09M | PHLP HD SCR M5-.8 X10 |
| 109 | PB14M | HEX BOLT M10-1.5 X 35 |
| 110 | P0449110 | ROLLER |
| 111 | PK34M | KEY 5 X 5 X 20 |
| 112 | P0449112 | BEARING UCFL204 |
| 113 | PB01M | HEX BOLT M10-1.5 X 30 |
| 114 | PW02 | FLAT WASHER 3/8 |
| 115 | P0449115 | ROLLER SUPPORT BRACKET |
| 116 | PB20M | HEX BOLT M8-1.25 X 35 |
| 117 | PW07 | FLAT WASHER 5/16 |
| 119 | P0449119 | SPROCKET |
| 120 | PSS16M | SET SCREW M8-1.25 X 10 |
| 121 | P0449121 | CHAIN 3/8 |
| 122 | P0449122 | SPROCKET |
| 123 | PK15M | KEY 5 X 5 X 35 |
| 124 | PSS16M | SET SCREW M8-1.25 X 10 |
| 125 | P0449125 | GEAR SET |
| 126 | PB20M | HEX BOLT M8-1.25 X 35 |
| 127 | PW07 | FLAT WASHER 5/16 |
| 128 | PN03M | HEX NUT M8-1.25 |
| 129 | P0449129 | SHAFT |
| 130 | PSS16M | SET SCREW M8-1.25 X 10 |
| 131 | PK34M | KEY 5 X 5 X 20 |
| 132 | PR37M | EXT RETAINING RING 32MM |
| 133 | P0449133 | COLLAR |
| 134 | P0449134 | COMPRESSION SPRING |
| 135 | P0449135 | PULLEY |
| 136 | P0449136 | V-BELT AX-25 |
| 137 | P0449137 | PULLEY |
| 138 | P0449138 | MOTOR 1/3HP 220V 1-PH (G0449) |
| 138 | P0450138 | MOTOR 1/4HP 220/440V 3-PH (G0450) |
| 138-1 | P0449138-1 | FAN COVER (G0449) |
| 138-1 | P0450138-1 | FAN COVER (G0450) |
| 138-2 | P0449138-2 | FAN (G0449) |
| 138-2 | P0450138-2 | FAN (G0450) |
| 138-3 | P0449138-3 | CAPACITOR COVER |
| 138-4 | P0449138-4 | START CAPACITOR 75MFD 125VAC |
| 138-5 | P0449138-5 | CAPACITOR COVER |
| 138-6 | P0449138-6 | RUN CAPACITOR 20MFD 300VAC |
| 138-7 | P0449138-7 | WIRING BOX (G0449) |
| 138-7 | P0450138-7 | WIRING BOX (G0450) |
| 139 | PB07M | HEX BOLT M8-1.25 X 25 |

| REF | PART # | DESCRIPTION |
|---|---|---|
| 140 | PW07 | FLAT WASHER 5/16 |
| 141 | PW07 | FLAT WASHER 5/16 |
| 142 | PN03M | HEX NUT M8-1.25 |
| 143 | P0449143 | SHAFT |
| 144 | PSS16M | SET SCREW M8-1.25 X 10 |
| 145 | P0449145 | PULLEY |
| 146 | PSS01M | SET SCREW M6-1 X 10 |
| 147 | P0449147 | SPECIAL PULLEY BEARING |
| 148 | P0449148 | SHAFT |
| 149 | PB02M | HEX BOLT M6-1 X 12 |
| 150 | PLW03M | LOCK WASHER 6MM |
| 151 | P0449151 | PULLEY |
| 152 | PR18M | EXT RETAINING RING 17MM |
| 153 | P0449153 | SPECIAL PULLEY BEARING |
| 154 | PR12M | EXT RETAINING RING 35MM |
| 155 | P0449155 | SPECIAL NUT |
| 156 | PN02M | HEX NUT M10-1.5 |
| 157 | P0449157 | KNURLED COLLAR |
| 158 | PSS01M | SET SCREW M6-1 X10 |
| 159 | P0449159 | HAND WHEEL |
| 160 | P0449160 | BAR |
| 161 | P0449161 | SLEEVE |
| 162 | P0449162 | BAR |
| 163 | PN01M | HEX NUT M6-1 |
| 169 | PSBS09M | BUTTON HD CAP SCR M6-1 X 12 |
| 170 | PW06 | FLAT WASHER 1/4 |
| 171 | P0449171 | COVER |
| 177 | P0449177 | INFEED GUARD |
| 178 | PB02M | HEX BOLT M6-1 X 12 |
| 179 | PW06 | FLAT WASHER 1/4 |
| 180A | P0449180A | SANDING DRUM |
| 181 | PK55M | KEY 7 X 7 X 40 |
| 182A | P0449182A | TENSION WHEEL |
| 183 | PR37M | EXT RETAINING RING 32MM |
| 184 | P0449184 | SANDING PAPER HOLDING CLIP |
| 185 | P0449185 | EXTENSION SPRING |
| 186 | PSB26M | CAP SCREW M6-1 X 12 |
| 187 | PW06 | FLAT WASHER 1/4 |
| 188 | P0449188 | PILLOW BEARING UCP206 |
| 189 | P0449189 | WEDGE FOR 2-HEAD |
| 190 | PB02M | HEX BOLT M6-1 X 12 |
| 191 | PB73M | HEX BOLT M10-1.5 X 50 |
| 192 | PB116M | HEX BOLT M10-1.5 X 45 |
| 193 | PW01 | FLAT WASHER 1/2 |
| 194 | PW02 | FLAT WASHER 3/8 |
| 195 | PN02M | HEX NUT M10-1.5 |
| 196 | P0449196 | SANDING DRUM PULLEY |
| 197 | PSS16M | SET SCREW M8-1.25 X 10 |
| 198 | P0449198 | HOLD DOWN ROLLER |
| 199 | P0449199 | HOLD DOWN ROLLER BUSHING |

# Roller and Drum Parts Breakdown



# Roller and Drum Parts List

| REF | PART # | DESCRIPTION |
|---|---|---|
| 200 | P0449200 | ROLLER BUSHING SUPPORT |
| 201 | PR19M | EXT RETAINING RING 28MM |
| 202 | P0449202 | HOLD DOWN ROLLER SPRING |
| 203 | PN02M | HEX NUT M10-1.5 |
| 204 | PN02M | HEX NUT M10-1.5 |
| 205 | PW04M | FLAT WASHER 10MM |
| 206 | P0449206 | SWITCH BOX |
| 207 | PW01M | FLAT WASHER 8MM |
| 208 | PB07M | HEX BOLT M8-1.25 X 25 |
| 209 | P0449209 | SUPPORT |
| 210 | P0449210 | SUPPORT STRAP |
| 212 | PN03M | HEX NUT M8-1.25 |
| 213 | P0449213 | GEAR BOX |
| 214 | P0449214 | CONNECTING SHAFT |
| 215 | P0449215 | PULLEY |
| 216 | P0449216 | GEAR |
| 217 | PSS01M | SET SCREW M6-1 X 10 |
| 218 | PR03M | EXT RETAINING RING 12MM |
| 219 | P0449219 | WORM GEAR |
| 220 | P0449220 | PULLEY |
| 221 | P0449221 | GEAR |
| 222 | PSS01M | SET SCREW M6-1 X 10 |
| 223 | PAW03M | HEX WRENCH 3MM |
| 224 | PAW04M | HEX WRENCH 4MM |
| 225 | PAW05M | HEX WRENCH 5MM |
| 226 | PLABEL-17 | FEED ONLY ONE LABEL |
| 227 | PLABEL-16 | DON'T STAND BEHIND LABEL |
| 228 | PLABEL-18 | HAND PINCH IN BELT LABEL |
| 229 | P0449229 | LABEL DON'T CHANGE SPEEDS |
| 230 | P0449230 | LABEL TENSION AJST LEFT |
| 231 | P0449231 | LABEL TENSION AJST RIGHT |
| 232 | PLABEL-12 | LABEL READ MANUAL |
| 233 | P0449233 | LABEL EMERGENCY STOP |

| REF | PART # | DESCRIPTION |
|---|---|---|
| 234 | PLABEL-11 | LABEL SAFETY GLASSES |
| 235 | PLABEL-13 | LABEL DISCONNECT POWER |
| 236 | P0449236 | MACHINE ID LABEL (G0449) |
| 236 | P0450236 | MACHINE ID LABEL (G0450) |
| 237 | P0449237 | GRIZZLY LOGO PLATE |
| 238 | P0449238 | HAND WARNING |
| 239 | PLABEL-30 | KEEP DOOR CLOSED |
| 240 | P0449240 | PHILLIPS SCREWDRIVER |
| 241 | P0449241 | RELAY 220V 1Ø BTH-60 (G0449) |
| 241 | P0450241 | RELAY 220V 3Ø BTH-60 (G0450) |
| 241A | P0450241A | RELAY 440V 3Ø NTH-25 (G0450) |
| 242 | P0449242 | RELAY 220V 1Ø NTH-3 (G0449) |
| 242 | P0450242 | RELAY 220V 3Ø NTH-1.9 (G0450) |
| 242A | P0450242A | RELAY 440V 3Ø NTH-1.05 (G0450) |
| 243 | P0449243 | CONTACTOR 220V 1Ø C45D-11 (G0449) |
| 243 | P0450243 | CONTACTOR 220V 3Ø 60A (G0450) |
| 243A | P0450243A | CONTACTOR 440V 3Ø 40A (G0450) |
| 244 | P0449244 | CONTACTOR 220V 1Ø C-120-10 (G0449) |
| 244 | P0450244 | CONTACTOR 220V 3Ø 25A (G0450) |
| 244A | P0450244A | CONTACTOR 440V 3Ø 25A (G0450) |
| 245 | P0449245 | START BUTTON (DRUM) |
| 246 | P0449246 | STOP BUTTON (DRUM) |
| 247 | P0449247 | START BUTTON (CONVEYOR) |
| 248 | P0449248 | STOP BUTTON (CONVEYOR) |
| 249 | P0449249 | DIGITAL AMP METER |
| 250 | P0449250 | E-STOP BUTTON |
| 251 | P0449251 | SPRING TENSION TOOL |
| 252 | P0449252 | CURRENT TRANSFORMER 50A/5A |
| 253 | P0450253 | G0450 440V CONVERSION KIT |
| 254 | P0450254 | AMP METER TRANSFORMER |
| 255 | P0450255 | 220V ELECTRIC PANEL PLATE (G0450) |
| 255A | P0450255A | 440V ELECTRIC PANEL PLATE (G0450) |
| 256 | P0449256 | CONTROL PANEL PLATE |

# WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

# Grizzly Industrial, Inc. WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Order # _____ Serial # _____

*The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services.* ***Of course, all information is strictly confidential.***

**1.** How did you learn about us?

| | | |
|---|---|---|
| ____ Advertisement | ____ Friend | ____ Catalog |
| ____ Card Deck | ____ Website | ____ Other: |

**2.** Which of the following magazines do you subscribe to?

| | | |
|---|---|---|
| ____ Cabinet Maker | ____ Popular Mechanics | ____ Today's Homeowner |
| ____ Family Handyman | ____ Popular Science | ____ Wood |
| ____ Hand Loader | ____ Popular Woodworking | ____ Wooden Boat |
| ____ Handy | ____ Practical Homeowner | ____ Woodshop News |
| ____ Home Shop Machinist | ____ Precision Shooter | ____ Woodsmith |
| ____ Journal of Light Cont. | ____ Projects in Metal | ____ Woodwork |
| ____ Live Steam | ____ RC Modeler | ____ Woodworker West |
| ____ Model Airplane News | ____ Rifle | ____ Woodworker's Journal |
| ____ Modeltec | ____ Shop Notes | ____ Other: |
| ____ Old House Journal | ____ Shotgun News | |

**3.** What is your annual household income?

| | | |
|---|---|---|
| ____ $20,000-$29,000 | ____ $30,000-$39,000 | ____ $40,000-$49,000 |
| ____ $50,000-$59,000 | ____ $60,000-$69,000 | ____ $70,000+ |

**4.** What is your age group?

| | | |
|---|---|---|
| ____ 20-29 | ____ 30-39 | ____ 40-49 |
| ____ 50-59 | ____ 60-69 | ____ 70+ |

**5.** How long have you been a woodworker/metalworker?

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

**6.** How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

**7.** Do you think your machine represents a good value? _____ Yes _____ No

**8.** Would you recommend Grizzly Industrial to a friend? _____ Yes _____ No

**9.** Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: *We never use names more than 3 times.* _____ Yes _____ No

**10.** Comments: _____

_____

_____

_____

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